## Nicobarese Grammar (Car Dialect)

By

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Geographic Location of the Nicobar Islands

Car Nicobarese is the language of the people of the island of Car micobar, which is located in the Bay or Bengal west of the Malay Peninsula (see precedin $m$ map). Car Ficobar is the northernmost and most populous and prosperous island of the Nicobar group, all nineteen of which lie south of the Andaman Islands and together with them constitute the major part oi an archipelaธ̃ which extends from Burma to Sumatra.

Since the midale of the seventeenth century the Nicobarese people have been increasingly in contact with the outside world. Portuguese sailors and French missionaries are the first recorded to have visitied the islands, the latter beginning to attempt to convert the natives in 1688. French Jesuits, Faure and Taillander, followed in 1711 to continue the work. However, in 1756 , the Danish Eást India Company gained control and began to try to colonize the islands, with its Moravian Mission in operation until 1768. During the Mapoleonic wars the British accuired control of the islands and attempted to restrain the sea piracy of the Nicobarese, wich had by this time become notoricus. In 1814 they ceded the islands back to the Danes, during whose occupation the French Jesuits again tried vainly to convert the people. In 1837 the Danes officially left the islands, but they returned in 1845 for their last attempt to colonize the people, shich again provea unsuccessful. After they left in 1848 the
islands were free from outside influence until the British again took possession in 1869, establishing a penal colony on the Andamans. From then until 1948, when the newly independent government of India took over control of the Andamans and the Micobars, Car Micobar was under British control except for Japanese occupation during World War II. Throughout all of the various periods of occupation the Nicobarese people have maintained extensive trade contact in coconut export to Burma, the Malay Peninsula, Ceylon, and now, India.

One of the results of this long contact between Car Nicobar and the outside world is a considerable number of loanmords in the Car lexicon. Ioans from Hindi-Urdu, English, Portuguese, Burmese, and possibly French have been identified in a separate study; the scope of the study presented here does not extend to coverage of loanwords.

The population of Car Nicobar is concentrated in a number of villages which dot the perimeter of the Island. The informants reported that dialect differences exist between the various villages; brief contact with people from two villages other than from Small Lapati, from which the principle informants came, did confirm that at least some differences do exist, though there is no question of a problem of intelligibility.

The language of the Nicobars is traditionally said to consist of six principal dialects, of which one is now probably dead, with several recognizable sub-dialectical varieties. However, formal dialect studies and presentation
of supporting evidence has at least until very recently been totally lacking. It is clear, however, that at least two dialects, Car and Central, are to be distinguished.

Pinnow classifies Nicobarese in the South West subgroup of the Eastern higher grouping of his Austroasiatic. This is a very broad study, encompassing many languages and based in large part on library research. Recent detailed studies by Norman Zide and David Stamp (of The University of Chicago), based on fresh field work, have clearly established that iricooarese is related to the Munda languages of India, thus substantiating the work of Pinnow.

Nicobarese became a written language at the end of the 19th century, when the Reverend George Whitehead, an Anglican missionary to the Nicobars, provided the language with a reasonably good orthography winich is now in widespread use by the people of Car Nicobar. He also translated the New Festament and compiled a most useful NicobereseEnglish dictionary, which inciudes about six thousand entries and fairly extensive notes on the language; it is an invaluable reference. His wosk is based on the dialect which is spoken in the capitol tow of Mus; due to its generally hish reliability and consistency I am inclined to believe that areas of consistent differences between his work and that of myself represent dialect differences between the two villães.

Due to an Indian government regulation prohibiting non-Indians from goine to the ricobar and indaman Islands, I have never been to the Nicobars. I have been unable to
learn the reason for the pronibition against outsiders, even though in my efforts to obtain the necessary permission I was granted a personal appointment with Prime Minister Jawaharlal Nehru to discuss the matter in 1953, shortly before his death. Though he seemed to be genuinely sympathetic to my goals of scholarly research the effort was to no avail. But I am still hopeful that in time the ben will be lifted and I will have the opportunity of renewing my study of the language in the cultural and linguistic setting with which it belongs.

The data on which this study is based consists of field notes and tape recoraings which were collected in Renchi, Bihar, India. The field work was conducted as a pari of a Munda Lanjuages Project which was oreanized by Professor Norman Zide of the University of Cnicaso. Financed by a grant to the University of Chicaso by the U. S. Department or state, the project was operative in India during the summers of 1952 and 1953. The principal informants were Pir. Fred James, with whom I worked extensively both summers, and Mr. Eimonès Mather, who was the sole informant in the first half of the summer of 1962. Both of these men were college students in their mid twenties and fairly proficient in English. The other informants with whom I spent any significant amount of time were Mr. Chamberlain Faul, Fr. Vililian Cyril, and Mr. Iivinestone Moses, all of whom were aiso college stuients. In addition, a group of five young schoolboys, aetd 3 to 17 years, provided a limited amount of tape recorded material.

The data available for this analysis has not been adequate for a definitive study. The periods of field work were altogether too brief - and at one time hampered by serious illness. Thus the grammar as presented - particularly the tacitics - must be considered an introductory stuay. I personally expect to pursue the study in the near - future.

In this day of intensive development of rigorously systematic models of Iinguistic description it seems somewhat quaint to write a grammar in the essentially eclectic manner that has been followed here. However, where it was repeatedly found impossible to arrive at definitive statements it was always possible to make at least some statements that were meaningful; thus the presentation has been shaped more by the meaningiul statements that could be made than by any system of analysis that would demand a statement where none was available。

Miy sincere thanks go to my informants, especially to Fred James, who enthusiastically rose before dawn to work with me before class and came back as soon as school was out each day; to Dr. Norman Zide for his enabling me to pursue the research; to my professors at the University of California - especially to Frofessors Murray Emeneau, John Gumperz, and Wallace Chafe - and to my fellow sraduate students with whom I spent many exciting and profitable hours in lively discussions. Sipecial thanks also so to Marilyn Compton, Kathleen Grinsell, and Barbara INoore, who
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| Adj. | adjective |
| :---: | :---: |
| Adjn | numeral adjective |
| an., anim. | animate |
| aux. | auxiliary |
| C | consonant |
| Clf | classifier |
| Conn. | connective |
| CS | causative stem |
| D | demonstrative Eronoun (in |
|  | Morphology) |
|  | directional suffix (in Pactics) |
| DC | dependent clause |
| DI | demonstirative locative |
| du. | dual |
| emph. | emphatic case |
| Enc. | English loan |
| excl. | exclusive |
| H | laryngeal corisonant |
| in., inan. | inanimate |
| incl. | inclusive |
| inter. | interrocative case |
| IOQ | incorporated object quantifier |
| IR | referential interrogative |


| I | labial consonant |
| :---: | :---: |
| Iit. | literally |
| T | ```nasal consonant (in Phonolosy) noun (in Pactics)``` |
| $\mathrm{Ni}_{\mathrm{c}}$ | common noun |
| ${ }^{19} \mathrm{cl}$ | classified noun |
| $\mathrm{IN}_{\mathrm{p}}$ | proper noun |
| ${ }^{1} \mathrm{u}$ | unclassified noun |
| NP | noun phrase |
| $\mathbb{P P}_{\mathrm{S}}$ | subject noun phrase |
| nucl. | nucleus |
| Num | unaffixed numerator |
| Ium $F_{I}$ | numeral phrase |
| P | non-laryngeal consonant |
| Pers. | personal |
| pl. | plural |
| poss. | Dossessive case |
| $F_{p}$ | possessive pronoun |
| Pred. | predicate |
| pron. | pronoun |
| S | major verb stem class |
| S | syllable |
| sg. | singular |
| SR | special rule |
| subj. | subject Case . .. |


| subor. | subordinate case |
| :---: | :---: |
| TS | thenatic stem |
| V | verb (in Grammar) |
|  | vowel (in Phonology) |
| $\mathrm{V}_{i}$ | intransitive verb |
| vis. | visible |
| $\mathrm{V}_{\mathrm{na}}$ | non-agentive verb |
| VHR | non-referential verb |
| VP | verb phrase |
| VR | referential verb |
| $\mathrm{V}_{\mathrm{t}}$ | transitive verb |
| (iI) | from whitelyead's dictionary |
| X- | $X$ is a prefix |
| - $\mathrm{X}-$ | $X$ is an infix |
| - Y | X.ist a suffix |
| (X) | X is optional |
| [ X ] | X is phonetic |
| $/ \mathrm{X} /$ | $X$ is phonemic |
| //E// | $X$ is morphonemic |
| \{ X \} | X is morphemic |
| $X \underset{\sim}{f}$ | X varies freely with Y |
| $X \sim Y$ | $X$ veries phonolociocally with Y |
| $\mathrm{X} \times \mathrm{Y}$ | I varies grammatically with Y |
| $X \rightarrow Y$ | $X$ is rewritten as $Y$ |


| $X^{-Y}$ | X but not $Y$ |
| :---: | :---: |
| $\left\{\left[\begin{array}{c} X \\ Y \\ Y \end{array}\right]\right\} \rightarrow\left\{\left[\begin{array}{c} X \\ -Y \end{array}\right]\right\}$ | $X$ is rewritten as $X$, <br> Y is rewritten as $Y$ |
| $\not \subset$ | a piace holder indicating the absence of any element |

## CHAPMER ONE

## PHONOIOGY

100. The Phonemic System

Nicobarese is analyzed here as having forty-one phonemes, of which seventeen are consonantal, twelve vocalic, and eleven prosodic.

The seventeen consonantal phonemes include a stop series contrasting with a nasal series at four positions of articulation, three fricatives, one lateral, one flap, two semivowels, and two laryngeals.

Vocalic phonemes include ten vowels and two vocalic modifiers. Components of tongue-frontness-orbackness and lip-rounding-cr-unrounding combine to produce three contrastive series of vowels: front unrounded, central unrounded, and back rounded. Witnin these series three positions of tongue neight are contrastive in the front and back series; four positions are contrastive in the central series. The two vocalic modifiers are vowel length and vowel nasaiization.

The prosodic phonemes are five of juncture, three of stress, and four of pitch. The jitch phonemes include two relative pitch levels (relevant at the sylleble leval) witiin each of two relative pitch refisters (relevant at the macrosegment level).
101. Consonants (C)

| Stops | p | $t$ | c | k |
| :---: | :---: | :---: | :---: | :---: |
| Nasals | m | n | ก | $n$ |
| Spirants: voiceless voiced | $f$ | s | r |  |
| Lateral |  | 1 |  |  |
| Flap |  | $\underline{\text { r }}$ |  |  |
| Semivowels | v |  | $\pm$ |  |
| Laryngeals |  | 2 and $h$ |  |  |
| 102. Vowels (V) |  |  |  |  |
| Front |  | Central |  | Back |
| High i |  | $\dot{\text { i }}$ |  | u |
| High mid e |  | I |  | $\bigcirc$ |
| Low mid $\varepsilon$ |  | ə |  | 0 |
| Low |  | a |  |  |

Vocalic modifiers: /:/ Length, /-/ nasalization = A single additional vowel phoneme, /æ/, must be added to the above list because of its occurrence in $a$ few English loan words. As the informants used in this study all spoke English quite well and their use of English was continually reinforced in nearly every informant session, it is an open question whether this phoneme occurs as a regular feature of the English loan vocabulary or whether it is in the idiolects of on?y those Nicobarese speakers who also speak English and then perhaps only in a pradominantly English context.
103. Frosodies

Junctural: pausal
$/ \ldots /$ hesitation juncture
$/ \uparrow /$ series contour
$/, /$ macrosegment contour
$/ \downarrow /$ sentence contcur
pausal

Stress:
/+/ word juncture /"/ emphatic stress /// primary stress

Weak stress is unmarked.
Fitch:
/3/ high pitch
/2/ low pitch
$/ \rightarrow$ low rezister
Figh register is unmaried.
110. The Phonetic System

The phonological description presented here is essentially traditional in the handing of the segmentable phonsmes, with bi-unique convertability maintaining between the phonetic and phonemic levels. The pro- . sodies do not field to such analysis, however, for the following two reasons.

1) Stretches of speeci longer than the word are relevant to the description of several prosodic phonemes; for example, pitch allophony is conditioned by other pitches within the macrosegment; thus the macrosegment is the relevant unit within which pitches are distributed.
2) Allowance of phonemic overlap is essential to any meaningful description of the prosodies. An example is the fact that pitch of weak-stressed syllables is predictable - yet the absolute pitch phones involved are contrastive in strong-stressed syllables. To require the writing of pitch on all syllables obscures the essential function and distribution of contrastive pitch.

The presentation of the phonology reflects the inherent organization of the language. The phonemes are presented as constituents in phonological constructions. The phonological constructions are sentence, macrosegment, word group, word, and syllable; they are presented in this order.
120. The SENTENCE is the largest unit which is distinguished phonologically. It consists of a sequence of one or more macrosegments and terminates with sentence final intonation, $/ \downarrow /$. The first macrosegment in a sentence has high pitch register, successive macrosegments may have either high or low register (sec. 134 ). The longest sentence observed in the corpus contains nine macrosegments, but this cannot be considered a limit to the number of possible macrosegments in a sentence.

Sentence final intonation contour is represented phonetically by a slight drop of pitch level and a trailing off of voice, tension, and loudness. This is symbolized both phonetically and phonemically as / $\downarrow /$ The final macrosegment of the sentence retains its usual macrosegment final contour / , / (sec. 135) . Thus a sentence ends phonemically in the sequence / , $\downarrow / 0$ In all cases except where they are specifically beiñ referred to, these phonemes in sequence are represented here orthographicaliy by conventional terminal contour symbols based on tine gramatical content of the sentence: a question mark in case of questions, an exclamation point with exclamations, and a period elsewhere. 130. The FACRCSEGRIETT consists of the following components: a sequence of words or word groups (words being bounded by word juncture), pitcin envelope, pitch register, and macroseतfment-final contour. A macro-
seement contains at least one prinary or emphatic stress.
131. The macrosegmental word sequence usually consists of from one to four words. Except in those macrosegments which contain series, which are potentially unlimited in number, few macrosegments are found having more than six words. In the following examples, macrosegments are separated by commas.

3
/l凭!/ 'Octopus:' (Said on sighting an octopus.)
33
/kú-I nóh cin./ 'I am cutting firewood.'
132. The word group is a special phonolosical construction employed to enumerate a series of items. It consists of a word or sequence of words plus series pitch contour. (Discussion of pitch is deferred to
below.)
Series pitcin contour, /i/, is realized as pause ([..]) plus, witin the syllable immediately preceding /个/, pitch [3] and diminution of tenseness and loudness with a coincident rising pitch glice following the syllsble nucleus, ([ $\uparrow]$ ). (Segments are written phonemically in examples accomranying prosodic sections.)
E.g.


 $\begin{array}{lllll}2 & 2 & 3 & 2\end{array}$
 $3 \quad 32$ masála ’inĩe•, no rá?an ’ín ?ع./ $\rightarrow$

|  | 23 | 11 | 3 | 32 | 2 | 2 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

 2321222232223

 cưh somit 3321232323


2322223321

'iftermards, lons aso, by ship merchants who were
from Madras and Calcutta went to Sumatra, Singapore and Burma and they took rubber, other non-edibles, and spices from it' ("it" refers to Car Nicobar).
133. The pitch envelope is composed of the pitches of the strong-stressed syllables of the macrosegment. Four relative levels of phonetic pitch may be readily distinguished; they are written as [1], [1], [2], and [3] (from lowest to highest). The choice of the symbol $1^{+}$for the mid-low pitch reflects the fact that it differs from [1] and [2] by about half the absolute distance in pitch which differentiates [2] from [3]. These pitches are distributed in two phonemic pitch registers - high and iow - which differ in range of pitch variation, the low register varying less from high to low than the high register. While pitch [I] is the lowest pitch in both registers, pitch [3] does not occur in the low register, and pitch [ $I^{\dagger}$ ] does not occur in the high register.

The high pitch register is urmarked in the transcription; the low register is designated by / / / at . the beginning of the macrosegment. The following chart shows the distribution of the pitch allophones in the two registers.

| Phoneme | Low register | High register |
| :---: | :---: | :---: |
| $/ 3 /$ | $[2]$ | $[3]$ |
| $/ 2 /$ | $\left[1^{+}\right]$ | $[2]$ |

(The symbols 2 and 3 have been chosen to represent the pitch phonemes -- rather than the preferred 1 and 2 -- in order to avoid confusion and error in the transcription from the phonetic orthography.) Examples:
 $22311223-11 \quad 1 \quad 1^{+} \quad 21^{+}-1$

'It can be used otherwise as timber.'
$\begin{array}{llll}3 & 3 & 2 & 3\end{array}$


$$
\begin{array}{llllllll}
3 & 2 & 3 & 1 & 1 & 1 & 1^{+} & 1
\end{array}
$$

[fàlyəテ̃r cá?a..nə kùmtə kasónr̃e.. $\downarrow$ ]
'They took their box and ran away.'
$3 \quad 32$
2
2


$$
\begin{array}{llllllll}
2 & 3 & 3 & 2-1 & 1^{+} & 2 & 3 & 2
\end{array}
$$


'Having finished eating they went to their village..'

2. 2, 233


$$
\begin{aligned}
& 2 \begin{array}{llllllll}
2 & 3 & 1^{+} & 2 & 3 & 2-1 & 2
\end{array}
\end{aligned}
$$

$$
\begin{aligned}
& \begin{array}{llllllllll}
3 & 2-11 & I^{-} & 1^{+} & 2 & 1-1 & 2 & 2 & 2 & 2
\end{array}
\end{aligned}
$$


'Once there was a canoe race between Sakuta, a canoe of Hus, and Cayhin, a canoe of Small Lapati.'
134.: Pitch register is ambiguous when the stressed syllable of a macrosegment with only one stress is macrosegment-initial and has pitch [2]; it may be considered to be either pitch /3/ in the low register or pitch / 2 / in the high register. All such cases are considered here to be instances of the more frequently occurring high register, e.g.

$$
23-111 \text { 2클 }
$$

was only full of blood.'

The pitch of weak stressed syllables is predictable and is considered allophonic with weak stress; it is described under weak stress. Following emphatic stress the entire remainder of the sentence may (stylistically) optionally occur with pitch [1]. In such instances, and in all instances of / / following / / / within a macrosesment, the contrast between the phonemic pitches is neutralized; (?) is written here to

$$
\begin{aligned}
& 2333
\end{aligned}
$$

indicate the ambiguous pitch, e.g.
23 (?) $22 j 21$ /hán kîhtėn, ?ín kol./ - .̀̀ kíhtèn.. ${ }^{\text {ińn kol.. } \downarrow \text { ] }] ~}$ 'There is just one problem facing us. :

A glide from pitch /2/ to pitch /3/ occasionally (though infrequently) occurs on an initial syllable having a long vowel (one example having a short vowel is the result of a contraction). This appears to be motivated by considerations of style. It is indicated by /2-3/ wherever found, e.g.

$$
\begin{array}{llllllll}
2-3 & 2 & 2 & 2-3 & 2 & 2 & 2
\end{array}
$$

 'The men planted again.'
 32223211 1 2 1 1 1

'Yet his name still remained.'
Analysis of pitch and pitch register has not proceeded beyond determination of their phonemic status, with the exception that their contrastive function in distinguishing yes-no questions from statements has been noted. Compare the following:
$3 \quad 3$
/tolanán クón na lí•por̃e?/ 'Is it a heavy book?'
$3 \quad 2$
/talanán ’an, $\rightarrow$ na íf•poric./ 'It is a heavy book.'


332
 wrestiing.'
 be tonight?' (i.e. 'How many days will it be since the new moon?')

| 3 | 2 |
| :---: | :---: |
| /taníy ?op, $\rightarrow$ mín./ | 'It will be the fifth |
|  |  |
|  | tonight.' |

All yes-no questions have high pitch on the final stressed syllable, which occurs in a high register macrosegment, e.g.


But not all instances of final high pitches in the high register are questions, e.g.
$33 \quad 3$

33333
/sí•plərí ró•kén hé•k, nuk ta’o•ko./ 'The coconuts were increasing in number again.'

It is probable that further analysis would show that various pitch envelopes have morphemic status, each of winch is correlated with a syntactic construction, indicating the construction type.

As with English, Nicobarese may be readily read by a person knowing the language without any indication of pitch. Because of this marginal function of pitch, and because pitch was omitted from much of the data used in making this analysis, pitch is not indicated throughout the rest of the grammar.
135. /,/, macrosegment contcur, has the following allophones:

- a pause (written as [..]) in the speech stream;
- pitch allophones as follows:
[l] occurs with weak stressed syllables which occur following the last stressed vowel of the macrosegment, e.g.

$$
\begin{aligned}
& 3 . \\
& 1^{+} 1^{+} 2,11
\end{aligned}
$$

$$
\begin{aligned}
& \text { 'It was full of blood.' } \\
& \text { A Elide to pitch [l] occurs on (1) a final } \\
& \text { syllable with primary stress, and (2) a non- } \\
& \text { final syllable with primary stress when it }
\end{aligned}
$$

has a long vowel and is the last syllable with /// in the macrosegment.

| 3 |
| :---: |
|  |  |

'He was returning to fetch the box.'


$\begin{array}{llllllllll}3 & 3 & 1 & 3-1 & 1^{+} & 1^{+} & 2 & 2 \\ \text { IーI 1 }\end{array}$ [tù•ktén ’o..nác..nə フi ròn haví •nə... $\downarrow$ ]
'She then pulled her down from the cobweb.' (Note: a final stressed closed syllable ending in a stor and having a short vowel glides very little; it is almost entirely on pitch [1], e.g.

$$
2 \quad 1^{+} 21^{+}-1
$$

$/ . . \rightarrow$ nə tarík, $\downarrow / \rightarrow[\ldots$ nə taríik.. $\downarrow$ ]'(refers to) person'

As the pace of speech is stepped up some of the distinctive characteristics of / // separating constructions of close constituency are successively lost, [..] being dropped first, with the glide and subsequent low pitch allophones following. In rapid speech weakstressed syllables before /,/ have pitch [2] in high . register macrosegments, pitch [ $I^{+}$] in low register macrosegments.
E.g.


$$
3 \quad 3 \quad 31^{+} 1^{+} 1^{+} 21^{+} \quad 1^{+} 21^{+}-1
$$

$$
\text { [tù•y १عl kúyז̃ } \varepsilon \text { ’an vamì•rs•? } \rightarrow \text { to tumlát.. } \downarrow \text { ] }
$$

136. Hesitation juncture, /.../, is realized phonetically as pause [...], a longer pause than the [..] associated with other junctures. Unlike macroseฐmentfinal contour, hesitation juncture is not accompanied by any pitch allophony. Iike emphatic stress, hesitation juncture does not participate in the dualism that characterizes the relationship between phonology and grammar, instead standing in a one to one relationship witi a morpheme meaning '(hesitation, thoughtfulness)'。


$$
\begin{aligned}
& \begin{array}{lllll}
2 & 3 & 2 & 3
\end{array}
\end{aligned}
$$

$$
\begin{aligned}
& 322323
\end{aligned}
$$

$$
\begin{aligned}
& 232322223321
\end{aligned}
$$

$$
\begin{aligned}
& \text { 'And they took...rubber, other non-edibles, } \\
& \text { and spices from it.' }
\end{aligned}
$$

$$
\begin{aligned}
& 3 \quad 3 \quad 31^{+} 1^{+} \quad 1^{+}{ }^{+} \quad 1^{+}-1 \\
& \text { (fast) or [tù•y } \left.{ }^{2} \varepsilon\right] \text { kúyř } \varepsilon \text { ’an..vamì•rb... } \\
& 1^{+} 2 \text { I_- }^{+} \\
& \text {to tumlát.. } \downarrow \text { ] (slow) 'Word-maker threw soil } \\
& \text { on her head.' }
\end{aligned}
$$

potentially bounded by pause, that is, it is a minimum free form. Ercept when the word boundary coincides with one of the other junctures, hovever, the potential pause only rarely in fact occurs. It is the potentiality of this pause ([..]) plus the relevance of its location to determining pitch allophony of weak stress, that is written as phonemic word juncture, /+/. In citing text material /+/ is indicated by space between words. It is only in the morphophonemic rules that the symbol / + / is used.

Phonological clues as to the presence of word juncture in a normal utterance are very few, and word juncture is highly elusive, though it is intuitively valid to the native speairer. Eract location of word juncture was not carefully worked out with the informant, and boundaries indicated here reflect irmediate constituent structure. This is an area deserving of ad̉itional study.

Syllable boundaries are entirely predictable, occurring as follo:s: (boundaries are indicated by hyphens in phonetic examiles)

1. between adj三cent vowels, e. ©. /víok/ $\rightarrow$ [véok] 'to grunt'
2. before an interrocalic consonant, e.E./la?óh/ $\rightarrow$ [la-?ón] 'to be broken'
3. between two conscnants which are intervocalic,

$$
\text { e.ธ. /kúyla/ } \rightarrow \text { [kúy-la] 'prow' }
$$

4. between the first and second consonant of a three consonant intervocalic sequence, e.g. $/$ mistríi $/ \rightarrow$ [uis-tríl] 'cerpenter'.

150．The SYIIABLE consists of a sequence of segmental phonemes and coincident stress．

Segmentally the syllable consists of an optional consonant onset，an obligatory vowel，and an optional consonant coda．A syllable with a coda is referred to as closed；a syllable without a coda is open． There are three contrastive degrees of stress： primary，weak，and emphatic．The peak of intensity of stress，which is the peak of the syllable，occurs on the vowel．

151．$/ / /$ ，primary stress，is realized as a degree of tension and fortisity intermediate between that of weak and emphatic stress．It has three allophones， given in order of decreasing degree of phonetic ten sion and fortisity：［＇］primary stress，［＇］secondary stress，and［ $[\mathcal{H}$ tertiary stress．Their distribution is as follows：（In the following discussion of stress allophone，the unit within which the stresses are dis－ tribute is the macrosegment．Occurrence of weak stress is irrelevant to environmental statements of strong stress allophony and is hence omitted from theme）
［u］occurs between primary stresses，e．s．

$$
\begin{aligned}
& 3 \quad 3 \quad 3 \\
& \text { /íisózno kúy kinló・クo in./ } \\
& \begin{array}{lllllll}
2 & 3 & 3 & 3 & 3 & 3 & 1
\end{array} \\
& \text { [tisj̀kno kưy kinló•习习 cit.. } \downarrow \text { ] } \\
& \text { 'i jump over the fence.' }
\end{aligned}
$$

3333
/sí•plorí rofkén hé•k, nuk ta’o•kə./
$\begin{array}{llllllll}3 & 3 & 3 & 3 & 3 & 3-1 & 2 & 3-11\end{array}$

'The coconuts were increasing in number again.'
['] occurs macrosegment-finally when no /"/ occurs in the macrosegment, e.E.

- 333
/kuříntén có•n cin, $\downarrow /$
$23 \begin{array}{llll}2 & 3 & 1 & 1\end{array}$
[kurỉintěn có•n cin.. $\downarrow$ ] 'I pusn John down.'
['] occurs elsewhere, i.e.
(1) macrosesment initially (If another /// or $/{ }_{3}^{\prime \prime} /$ occurs in the macrosespent), e.g.

23 3 3-1 1 2
[kīh̀̀•to kú・つ cin $\downarrow$ ñá・フ.. $\downarrow$ ]
(2) macrosegnent finally when preceded by $/ " /$ Coniy a single /"/ has been observed following /"/in a macrosesment), e.g.

2 3(?) 2
/hón Kíntén, Pín kol/
2312 1
[hə̀n kíhtèn, Pín kol] 'There is only one sroblem (facing) us.'

Ejeat stressed syllables are relatively lax and lenis, as compared with syliables having primary or . emphatic stress. Fitch of weak stressed sjllables
is predictable and is considered allophonic with weak stress. These pitch allophones are as follows (recall that pitch of weak stressed syllables following the last stressed syllable of a macrosegment is allophonic with juncture, not stress):

| Register | Rule | Additional relevant |
| :---: | :---: | :---: |
|  |  | environment |

Low High
[1] [1]

1. Cccurs when emphatic stress /"/precedes in the sentence.
[2]
[3]
2. Occurs with all successive weak stressec syllables preceded by word juncture and followed by a final /2/ or word juncture plus final / $2 /$.

$\left[1^{+}\right] \quad[2] \quad$ 5. Occurs elsewhere.

## Examples:

The allophonic rule accounting for the pitch of weak stressed syllables is indicated directly below the syllables, in the row labeled 'rule'. 333 ? /fástit tí•? cíh ?ən nê•:/ $\rightarrow$
$\begin{array}{llllll}3 & 3 & 3 & 3 & 1 & 1\end{array}$

Ṛule:
3
1
'Who chipped these chips?'
$\begin{array}{llllll}3 & 3 & 3 & 3 & 3\end{array}$

$\begin{array}{lllllllll}3 & 3 & 3-1 & 1 & 1 & 1 & 1\end{array}$

Pule: 3

111

11111.1

Rule: 1 l
'It took us four days to 50 from Madras to Calcutta.'
 3， $333333-111 \quad 1^{+} 1^{+} 222$


Rule：

$$
33
$$

33
5533

2
2
cú•k，hhən＞i pú••／
$1 \pm 1 \quad I^{+} \quad 2 \quad$ I 1
cú•k．．hə刀 ${ }^{\text {i }}$ pú•？．．$\downarrow$ ］
Rule：
52
＇In ancient times there were no coconut trees
in any other places，only in Car Nicobar．＇
3.
2
$/$ ha＇ãhlanə cá＂a，to yik hól $\tilde{r} \varepsilon . / \rightarrow$
23.22312331
［ha？ầhlong cá？a．．tó yik hólř．．．ل］
Rule： 5335
＇They were served by their friends．＇


Rule： $\begin{array}{llllll}4 & 2 & 5 & 5 & 3 & 2\end{array}$
＇It reached Small Lapati．＇

$$
\begin{aligned}
& 322302
\end{aligned}
$$

$$
\begin{aligned}
& \begin{array}{lllllllll}
3 & 2 & 2-1 & I^{+} & 2 & I^{+}-1 & 2 & 3 & 2-1
\end{array} \\
& \text { [yぶilə narc.. no }{ }^{2} \varepsilon l \text { patio? } \\
& \text { Rule: } 3555 \\
& \text { 'hither that they went up into the house and sang.' } \\
& 2 \text { 2-I } 2 \\
& / \text {...cush pol } \cdot \mathrm{mã}{ }^{\text {innre }} \text {, mi`iníhã, ...// } \rightarrow \\
& 221113321 \\
& \text { [...cush pá•mã }{ }^{\text {infre ..mi"iñíhã.. ...] }] ~} \\
& \text { Rule: } \\
& 22 \\
& \text { '... and merchants went to Burma...' } \\
& \begin{array}{llll}
3 & 3 & 2 & 3
\end{array}
\end{aligned}
$$

> Rule: 3.3 - 4 - 5
> 'They took their box with them and ran away.'
> little time was spent with the informant working out prosodic problems; this was an unfortunate omission as many questions have been left unanswered by the available data. It is clear that syllables with phimary stress contrast at two pitch levels; the obvious solution of considering strong stress an allophone of each of two pitch phonemes has been rejected here because the pitcin system seems to be separate from the stress system. Given knowledge of the gramaticsil
class of morphemes it is possible to predict almost entirely which syllables will have primary stress； pitch level prediction and function however have not thus far yielded to analysis．
152．Emphatic stress，$/ \% /$ ，is the strongest and most intense degree of inicobarese stress．It is always accompanied by pitch／3／．Pitch phonemes and primary stress have special allophony following emphatic stress； this has been noted in connection with the presentation of these phonemes．

Like hesitation juncture，emphatic stress stands in a one to one relationship with a single morpheme， in this case＇（emphasis）＇．It normally occurs with all expletives；it may also occur with any primary stressed morpheme to draw attention to it．

Examples：

```
    2322
    /nón kîhtén, "ín kol./
    \(232-121\)
    [hə̀n kîhtèn, .. ín kol.. \(\downarrow\) ]
    'There is only one problem (facing) us.'
    3
    /1年ท. /
    3-1
[工ぎロッ.. \(\downarrow\) ] 'An octopus:'
        333
    /"敀. Ké?e níh savon man./
        3-1 333331
    [?N゚h.. \(\downarrow\) kè? e 7ǐh savón man.. \(\downarrow\) ] 'Here: Take this soap.'
```


## 3 <br> /Eaña̋h cin./ <br> 23 I <br> [kap̈äh cin.. $\downarrow$ ]

Lit: 'I am dead!'; equivalent to 'nly God:' (surprise).

Description of the distribution of phonemes in the syllable is the suoject of the phonotactic section, deferred to after the presentation of consonant and vowel allophony.
160. The Consonants.

The stops are voiceless in all their environments. In syllable initial position they are fortis in articulation; syllable finally, they are lenis and, unless they are before pause, are without audible release. Before the pause associated with any juncture, they have a slightly aspirated release. Elsewhere they are unaspirated. (Examples are cited phonemically.)
$/ \mathrm{p} /$ is bilabial.

| pó•p | 'to make' |
| :--- | :--- |
| haṕr•tə | 'to burn' |
| cáplə | 'to put up' |
| kinps'tə | 'the tying' |

$/ t /$ is aiveolar.
tú•kle 'to pull up'
mát 'eye'
mítti . 'to go down'
maté•ro 'eagle'
/c/ is palatal. Prevocalically it is usually
affricated: [tX].
cúb 'place'.
kí口 $\cdot \mathrm{c}$ 'to write'
can亏̄́ca 'hurricane'
'incét 'small fish trap'
$/ k /$ is a back velar stop when it is before /a/ or $/ 0 /$ or when it is syllable final after /o/; elsewhere it is a velar stop.

| sikón | 'elbow' |
| :--- | :--- |
| Łá.? | 'fish' |
| latókkati | 'to be broken down' |
| kín | 'to carry on shoulders' |
| súktaře | 'to fall' |
| tá•k | 'to be lined up' |

The nasals jarallel the stops in their positions of articulation. As a syllable coda to a stressed oral vowel a nasal has homorganic, voiced, lenis prestoppage. This is essentially a lack of simultaneity of closure of the oral passageway and opening of the velic, resultins in the affricated nasal phones [Gm], [an], [jñ], [家n]. The oral stop component of the phone is shorter in duration than is the nasal stop. In all other environments the nasals are fully nasal, voiced, and fortis.

```
/m/ is bilabial:
    mäh 'hey there'
    lúm 'to bring'
    límle 'roll up'
    kammóp 'barber'
\(/ n /\) is apico-alveolar:
        nã́•rə 'outrisser'
    ct•n 'tree'
    ’inn \(\overline{\tilde{\varepsilon}} \cdot\) to \(\quad\) 'thiré'
    kinmó•nə 'knee'
    /in/ is paiatal:
```

| กัã•? | 'to eat' |
| :---: | :---: |
| k̇̇̇ | 'to be old' |
| sé•ñla | 'to shred, cut up' |
| mumñám | 'player' |
| sé-ño | 'be shredded' |
| sé•ñño | 'to mince and take away' |
| $/ \mathrm{y} / \mathrm{has}$ a post velar allophone when it is syllable |  |
| final nã•v | elsewhere it is a velar nasal. 'ripe (of fruit)' |
| no์n | '(classifier used in counting animals)' |
| tú• y ño | 'to slice out' |
| fınnə | 'to burn away' |
| há・クə | 'to be obeyed' |
| cí•pıə | 'to go straight away' |

- The fricatives share a phonological feature of spirantalization and a distributional feature of in-frequent- or non-occurrence syllable finally. (The peculiarity that two of the spirants, /f/ and /s/, are voiceless in all their environments while the third, $/ r /$, is voiced, is a reflection of the historical development of /r/ from an earlier /*y/.)
/f/ is a voiceless labiodental sirant:
f́é1
fatá-k
kufón
'to kill'
'to slap'
'to be thick'

 nemic rules. They show peritial complementation on the
phonemic level: siflable finally $/ \mathrm{h} /$ is never preceded by a long vowei, / // always is. It is likely that these phonemes were formerly allophonic variants of a single phoneme.
/ / is a glottal stop. word initially it does not contrast with zero and is frequently omitted, especially in rapid speech. Elsewhere between vowels it is weakly articulated. Syllable finally it is more fortis, especialiy word finally. Like the other stops, / $/ 7 /$ has a noncontrastive aspirated release before pause. 'ahé $\quad$ 'to fish (with poison)' "ám 'dog' Iú?u 'to be chased' rá•?ta 'to be put' kin?シ́•c 'matches' ká•? 'fish'
$/ \mathrm{h} /$ as a syllable coda is actualized as a voiceless non-syllabic offglide of the same quality as the preceding vowel. A considerable amount of air escapes through the vocal cords, producing a breathy, spirantalized sound, for example, fóh 'to sweep' sćhti 'to be overcooked'

As a syllable onset $/ \mathrm{h} /$ is actualized as a voiceless (initially or followins a consonant) to slightly voiced (following a vowel) onglide of the same quality
as the foliowing vowel．It is accompanied by minimum glottal friction，for example，

| fóho | ＇to be swept＇ |
| :--- | :--- |
| humlúm | ＇gold＇ |
| ró•Ihaka | ＇to be IJing down＇ |
| kahál | ＇to cook＇ |
| típhat | ＇to press（thing）in＇ |

161．Examples of consonant contrasts are，
$p-t-c-k:$

| pó•k | ＇to bind together＇ |
| :--- | :--- |
| tó•k | ＇to drive a nail＇ |
| có•k | ＇to sew＇ |
| kó•k | ＇to beat＇ |

ḱqp＇be firm＇
k壬t＇be energetic＇
ḱ㇒́c＇to pluck＇
ḱ⿱㇒士刂
m－n－ñ：
tám＇to harpoon＇
tán＇be immobile＇
táñ＇be savage＇
tán＇put up a wall＇

| mém | ＇older brother＇ |
| :--- | :--- |
| ném | ＇coconut fibre cloth＇ |
| $\tilde{n} \varepsilon \cdot k$ | ＇to tie＇ |


|  | ＇to look carefully＇ |
| :---: | :---: |
| ñá•k | ＇be spread out＇ |
| yá•k | ＇be spoiled＇ |
| $f-s-r-h-7:$ |  |
| fát | ＇to capsize＇ |
| sát | ＇tell before＇ |
| rát | ＇to slice crosswise＇ |
| hát | ＇be light＇ |
| kiyát | ＇ant＇ |
| $\underline{r}-\underline{r}-1:$ |  |
| r壬t | ＇harvest coconut＇ |
| rí玍t | ＇taut＇ |
| 1壬t | ＇to cut or trim＇ |
| $p-m-\nabla:$ |  |
| sáp | ＇to stab＇ |
| sám | ＇gum＇ |
| pisáv | ＇to mess up＇ |
| $p-f-V:$ |  |
| péh | ＇to toss＇ |
| féh | ＇to lift up＇ |
| $\nabla$ éh | ＇to be warped＇ |
| t－n： |  |
| sá•t | ＇to weave＇ |
| sá•n | ＇be busy＇ |
| c－$\overline{\mathrm{n}}$ ： |  |
| tác | ＇to reach＇ |
| táñ | ＇be savase＇ |

```
k - n:
    tá•k 'measure with arms'
    tá•\eta 'portable oven'
h - ?:
    sí`i 'devil'
    síhi 'be blo:nn aside'
    73k . 'to drinix'
    hóz 'to bale water'
? - \varnothing:
    sú. 'to drag along side'
    sú-? 'to jump down'
    kam``.t 'one who drinks'
    kamż`t 'one who rows'
```

170. The Vowels.

The vowels are voiced in all their environments. In rapid syeech, macrosegment-final vowels tend to be weakly articulated and are sometimes hardly audible.

Before syllable-final /h/ vowels are exceptionally short in duration -- approximately one half a mora. Elsewhere, unlengthened vowels are about one mora in length. (See page 57 regarding contrastive vowel length).

An epenthetic vocalic palatal glide [i] occurs following a vowel -- short or lengthened -- before the palatal consonants /c/ and /n/when they are syllable final, for example.

| péc | 'snake' |
| :---: | :---: |
| lác | 'to shewer' |
| f5-cla | 'canoe zrow' |
| k̇́n | 'old, ripe' |
| sé•ñla | 'to mince' |
| 刀口•ñci | 'monkey' |

In the following environmenis all vowels have slightly nasalized allophones: (See sec. 150 for discussion of the syllable).
(a) In an unstressed closed syllable beginning with / $/ /$ or $/ \mathrm{h} /$ and ending with a nasal consonant, for example,
'inrúy 'fly'
humlúm 'sold'
(b) After a nasal consonant when neither / / / or $/ \mathrm{h} /$ follows, for example,

| tanéy | -ve' |
| :--- | :--- |
| mól - | just now' |
| malá-kə | 'citron' |

Little additional environment-conditioned allophony is found among the vowels. Only /i/, /u/ and /a/ have somewhat consistently perceptionally distinct allophones in complementary environments.

Similar environments determine the distribution of the allophones of /i/ and /u/. The relevant environments are shown in the following chart.

Environment

| 1.Before length | /i/ | [i] |
| :--- | :--- | :---: | :---: |
| 2. Unstressed in open syllables; | [u] |  |
| stressed in closed syllables | [iv...i]* | [u...u] |
| 3. Unstressed in closed <br> syllables | [I...iv] |  |

(*...here means that the allophones vary freely over a range bounded by the phones given; ${ }^{\vee}$ means 'lowered'.)

## Examples:

/i/

$$
/ u /
$$

1) lím 'to roll' tú•习 'to slice lengthwise' tafí•si 'widow' pinīú•nə 'mist'

| 2） | milón | ＇to move＇ | turis－ | ＇be dark red＇ |
| :---: | :---: | :---: | :---: | :---: |
|  | larî́t | ＇tail＇ | túm | ＇bunch＇ |
|  | fé•1i | ＇be killed＇ | só•tu | ＇be forbidden＇ |
|  | ${ }^{\text {i }}$ | ＇to，in＇ | ？uhś．m | ＇to breathe＇ |
| 3） | ）kinsóh | ＇fingernail＇ | kumy辛•nö | ＇earthquake＇ |
|  | tilni̊｀ | ＇clam＇ | kunléh | ＇something thrown＇ |
| ／a／is a low central unrounded vocoid；it is backed |  |  |  |  |
| when stressed and preceded by $/ \mathrm{k} /$ ；for example， |  |  |  |  |
|  | may sea tala＇kə＇be falling apart＇ |  |  |  |
| lác＇to skewer＇kanã•ņ＇sister |  |  |  |  |
| lá．c＇to massage＇ $95 \cdot 1 \mathrm{ka}$＇custard appl |  |  |  |  |
| ñáフã＇food＇sák＇to fish with a |  |  |  |  |
| ká•？＇fish spear＇ |  |  |  |  |

The phonetic qualities of the remaining vowels are as follows：
／e／is a mid close front unrounded vocoid，for example，
hén
hé．
péh
ké＂en
$/ \varepsilon /$ is a mid open front unrounded vocoid，for example，
cátý́n＇be lost＇ pép＇slap＇ $n \dot{\tilde{\varepsilon}} \cdot n$ p ह́•t
＇one＇
＇when＇
＇a bubble＇
＇țake away＇
＇be tight＇
＇be burned＇
[ $\varepsilon$ ] and the sequence [ $\varepsilon \sigma$ ] are almost in complementary distribution, [ $\varepsilon \rho$ ] occurring stressed before $k, \eta$ and $l$, and $[\varepsilon]$ occurring elsewhere. (Recall the front glide before palatals, found after all vowels.) In violation of this distribution are a few loan words and a few infixed forms where [ $\varepsilon$ ] represents //e// after a nasal, e.s.

> /sćkentər̄ì 'secondary'
/humén/ 'only one', \{hén\} 'one'
Compare /kanéon/ 'viece of stick on a long fisning line'.

Phonetically the sequence [ $\varepsilon \rho$ ] is a diphtiong, with stress on the [ $\varepsilon$ ], when it is short. :Then it is long, however, the stress is on the [0], with both [ $\varepsilon$ ] and [ 0 ] ciearly occupying the peaks of syllables. This sequence [ $\varepsilon \sigma$ ] is phonemicized here as / $\varepsilon$ /.

Examples:

$$
\begin{array}{ll}
\text { /péok/ } & \text { 'to puil' } \\
\text { /pites'nə/ } & \text { 'to make something numb' } \\
\text { /kunह́ol/ } & \text { 'to be concave' } \\
\text { /cintéon/ } & \text { 'mosquito curtain' }
\end{array}
$$

／ì／is a high close central unrounded vocoid，for example，
kít＇be sharp＇
kihㅗㅗㄴ．t＇to be finished＇
tí•＇to glide through air＇
híh ．＇to cease，desist＇
tí•ki＇be pulled＇
／I／is a high open central unrounded vocoid，for example，
kít＇be vigorous＇

tín－ki＇be removeã fron fire（of pot）＇
tal⿱㇒士口儿•kə＇parrot＇
$/ \sigma /$ is a mid open central unrounded vocoid：
つok＇he（subj．pron；past，anim．，
non－vis．）＇
ñ゚๋フั •＇dove＇
móy＇unbreakable＇
talá•ho＇road＇
hóh＇light（in weight）＇
piró•y＇to aissolve＇
／o／is a mid close back rounded vocoid，for
example，
rós＇to accompany＇
＂ufóy＇be cold＇
tórk＇to drive a nail＇
he？ó•＇to drive catile＇
/o/ is a mid open back rounded vocoid, for example, rón 'product, fruit' 1ó• 'to crawl, creep' ñ̃̄-k 'to suck'
/ae/is a low front unrounded vocoid. This phoneme is marginal to the language, occurring only in a few loan words, for example, pláe nlét 'blanket' ’ǽsít 'acid'

Special comment is in order regarding /II and /o/. It is clear that these vowels, now distinct, were formerly allophones of a single phoneme, [ə] occurring unstressed, after a nasal, or before $/ \mathrm{h} /$, and [I] occurring elsewhere, i.e. stressed, not after a nasal, and not before $/ \mathrm{h} /$. This complementation is still found when the vowels are short -- with the exception of the two loan words /kátta/ 'donkey' (Hindi), and /třám/ 'drum' (English) and one word having a nasalized vowel/tik壬.c/ 'person having protruding buttocks.' (/I/ and /a/ alternate freely before /s/ in stressed, closed syllables, e.g. /rís $\underset{\sim}{\text { fi }}$ rós/ 'to irrigate'.)

Contrast is found between $/ \pm /$ and $/ \partial /$, however, when they are long and in open syllables. Note the pair



This contrast is the result of a historical change in the language to the effect that all stressed vowels in open
syllables were lengtriened, unless a laryngeal followed.
A ten vowel system is clearly required to handle the long vowels. If lo氵n words were ignored, nine vowels would be adequate for the short vowels. However, such a solution would require separate sets of long and short vowels; $/ \cdot /$ could not be treated as a "vocalic modifier", and kence the relationship between long and short vowel forms of a single morpheme could not readily be shown. This would be a serious violation of the dynamics of the language. For this reason, because of the occurrence of [ 0 ] in loan words in environments non-complementary with [ $I$ ], and because of strong informant insistance about the distinction of these vowels, the present solution has been adopted.

Two vocalic components have been isolated as separate phonemes: length and nasalization. Phis solution was adopted over one setting up separate series of vowels -short, long, short nasal, and long nasal -- because this present solution simplifies the statement of the morphophonemics -- as well as the phoneme inventory -and hence represents the structure of the language more adequately.

Long vowels vary in lensth from about one and a half to two and a half morae. The shortest lengtn occurs when the vowel is followed somewhere in the macrosegment by a stressed syllable while the longest occurs when the vowel is immediately followed by an open syllable.

In environments other than these a long vowel is about two morae in length．Examples of long vowels have been presented above．

Phonemic nasalization，in contrast to the predic－ table nasalization described above，is produced with wide velic opening，resultin in considerable nasal resonance． Examples：

| ขモ̃á•Və |
| :---: |
| ci－pno |
| $t i ? \varepsilon \tilde{a} \cdot t$ |
| p主》 |
| tik辛•C |

＇a light＇
＇to have consumption＇
＇to groan＇（onomatepoetic）
＇gas on bowels＇
＇a person deformed by protruding buttocks＇

| ？${ }_{\text {à }} \cdot \boldsymbol{t u}$ <br> ทắt $\mathrm{h} \tilde{\partial}$ |
| :---: |
|  |  |
|  |  |

＇a duck＇
＇be curved，rounded＇
＇yes，to rish，want＇．
171．Examples of vowel contrasts are，

```
i - e - ع:
```

    síhi 'be blown (of nose)'
    séhe 'slats (for floor)'
    séh \(\quad\) 'be overcoored'
    i• - e•:

| ci•v | ＇to capsize＇ |
| :--- | :--- |
| cé• $\nabla$ | ＇quiet＇ |

е• $-\varepsilon \cdot$

| sé•t | ＇a fruit shoot＇ |
| :--- | :--- |
| sé•t | ＇to stab＇ |



```
u - o - o - ह- - - a:
    Iúhne= 'to unloose'
    lóhno 'to hit and leave'
    lóhne 'the south,.south wind'
    IÉhno 'chip off a piece'
    lóhlo 'to get loose'
    láhn\partial 'to tear down'
u* - o::
    tú`k 'to pull'
    tó·k 'to ċrive a nail'
0- - 0`:
    vó•k 'bathe'
    vó·k 'fishhook'
\varepsilon• - ә•:
    p\varepsilon`p 'poisonous tree'
    pá`p
    'a reed type'
    ə• - Ј•:
    vé•k 'to grasp'
    vók 'fishhook'
    0* - a`:
    ko.? 'to be able'
    ká-? 'fish'
    \varepsilon• - a•:
    s\tilde{\varepsilon}\bullett 'to stab'
    sá-t 'to weave'
    i - i•:
    sip 'type of knife'
```

| síp | ＇to grow＇ |
| :---: | :---: |
| $e-e \cdot:$ |  |
| sampét | ＇papaya＇ |
| pé•t | ＇to be healed＇ |
| $\varepsilon-\varepsilon \cdot=$ |  |
| pép | ＇to slap＇ |
| $\mathrm{p} \varepsilon \cdot \mathrm{p}$ | ＇poisonous tree＇ |
| 主－主•： |  |
| tíc | ＇to rip with teeth＇ |
| tí $\cdot \mathrm{C}$ | ＇to plant＇ |
| ə－ə•： |  |
| páp | ＇a type of tree＇ |
| pá•p | ＇a type of reed＇ |
| a－a．： |  |
| cát | ＇to be lost＇ |
| cá•t | ＇move＇ |
| $u-u \cdot:$ |  |
| túg | ＇to cause to overflow＇ |
| tư n | ＇to slice＇ |
| 0－0．： |  |
| ról | ＇to insert＇ |
| ró－1 | ＇to be many＇ |
| 2－0．： |  |
| ñók | ＇to pluck＇ |
| n̄ó•k | ＇to suck＇ |
| $æ-\varepsilon:$ |  |
| plǽņk | ＇blanket＇ |
| plékpót | ＇blackboard＇ |

síp＇to grow＇
e-e•:
sampét 'papaya'
pé•t 'to be healed'
pép
$p \varepsilon \cdot p$
'to rip with teeth'
'to plant'
'a type of tree'
'a type of reed'
'to be lost'
'move'
'to cause to overflow'
'to slice'
'to insert'
'to be many'
180. Phonotactics

Statements made in this section do not apply to loan words unless so specified.
a. Nasalization co-occurs with stress, with but two exceptions;
? $\check{a}$ •və 'light'
pā̃n 'pound' (Eng.)
The following chart lists the vowels with which nasalization may co-occur.

Short
$i \neq u$
$\varepsilon \quad \partial \quad จ$
$a$

Iong
i• ミ・ $\mathbf{u}^{-}$
I•
$\varepsilon$ • $\boldsymbol{z}^{\text {• }} 0^{\bullet}$
a•
 son having deformed, protruding buttocks.' The presence of both nasalization and lengtin with /I/ are surprising and unique in this word.

The following vowels are always nasalized. l. A long vowel following a nasal consonant, e.g. néert 'two'.
2. A tonic or post-tonic vowel following a laryngeal when there is a nasal in the preceding syllable, e.g. mihír•yo 'caterpiller (type)' ${ }^{\text {inhhúútə }}$ 'catchin
tilní? ${ }^{\text {I }}$ 'clam'.
b. Length occurs contrastively with all vowels excent the new phoneme /æ/. Ho:sever, certain limitations to the distribution of $/ / /$ must be mentioned.

1. /ə•/ contrasts with / / / only when a nasal precedes.
2. /e./ and $/ 0 \cdot /$ and, to a lesser extent $/ \varepsilon \%$ and $/ 0 \%$ are almost in complementary distribution with, respectively, /e/, $/ \rho /, / \varepsilon /$ and $/ \rho /$, the short vowels occurring before the fricatives $/ \mathrm{h} /$ and $/ s /$ and in the environment. 'H_ where $H$ is a laryngeal, and the long vowels occurring elsewhere. (A special statement for $/ \mathrm{\%}$. is thet it occurs aditionally (l) before the velars $/ k /$ and $/ \mathrm{n} /$, and (2) unstressed). There are exceptions to each of these statements of complementation, but it should be noted that most of the data exhibits the complementation as stated.
3. Lensth does not occur contrastively with /生/ in closed syliables. (tikj•c, noted abcve, is a single exception.) Thus leñth is freely contrastive only with the symetrical vowels /i, シ, u, a/.

Ions vowels nearly always co-occur with stress, but there are exceptions, e.g./Pinre•/ 'and', /por?/ 'because', /ve• / 'if'.
c. The syllable canons are: $\dot{V}(C) \quad C V \quad C V C \quad C V(C)$

Differing distributions of phonemes in these syllable types preclujes collapsins the canonical formulae. There is by no means free occurrence of consonants and vowels within these formulae. Fossibilities are as follows:

1. Syllables without onsets. Type $\dot{V}(C): V=a, i$, 0 $C=k, \eta, l$ after 0 $C=t, v$ after a (only two instances.)
$/ \varepsilon /$ precedes VC syllables in all instances except the interjection 'aí' 'look', which also proviaes the only example of /i/f in a syllable without an onset. Syllables of this type are by far the least frequently occurring in the language.

Examples:

```
pant\varepsiloná-\a 'melon'
kap\varepsilonón 'porpoise'
kuh\varepsilonól 'be concave'
ti"عä.t 'to groan (onomate;oetic)'
kum&á•v 'cat'
```

2. Syllables with onsets.

Vowel harmony and metathesis result in some. consonant and vowel distributions which occur nowhere else in the language. As a result of vowel harmony alone, any vowel which may occur stressed before a laryngeal may also occur unstressed aiter it. This includes all vowels except/I/ and /æ/.
E.g.
/fóho/ 'be whioped'
/つミొ리/ 'to be admired'
As a result of both vowel harmony and metathesis, the consonants $/ I, \tilde{n}, \eta, V, \forall /$ occur syllable finally aiter all vowels except/ / =/ and /æ/in unstressed syllables beginning with a laryngeal, E.g.
/só"ov/ 'be rejected'
/véveñ/ 'be tola'
/péncy/ 'be thrown away'
what appears to be vestizal vowel harmony is
seen in the following five forms:
pih́s• 'morning'
řehén 'cord'
ceň́n 'tining'
${ }^{2}$ ché $\quad$ 'to sneeze'
kih́ㅗ•t 'be complete'

These forms are exceptions to the distribution of unstressed /ì/ and / $\varepsilon /$. (A number of forms with prefix to- such as /tohémñi/ 'which is flowing out' show that the first vowel in each of the above forms cannot be construed as schwa assimilated to the following stressed vowel.)

In order to present a clearer picture of the whonotactics, syllables which are the result of metathesis and/or vowel harmony are excluded from the following discussion.
a. The following general restrictions obtain on the sequence consonant-vowel.

1. The hiEh mid vowels /e, $I$, o/ do not occur after a nasal consonant, nor does the new phoreme /æ/.
2. /ì/ does not occur after /ñ/.
b. Syllables having an initial consonant are of the followins types.

Type CV: $C=$ all consonants

$$
V=a, \quad \partial, i, u
$$

The only syllables of this type which have not been noted are *fu, *ĩu. A single CV syllable is not described by the above formula: $\mathfrak{r} \varepsilon . ~ / \varepsilon /$ does not occur unstressed anywhere except in this syilable and. in harmonic situations discussed above.

Type $C_{1} V C_{2}: C_{1}=$ all $C$ except $r, v$ $C_{2}=\operatorname{all} C$ excent $f, s, ?, r$ $\mathrm{V}=\mathrm{a}, \quad \partial, i, u$

Only a relative few of the seven hundred and eighty possibilities generated by this formula have been found to occur; those which have been found are given in Appendix I. The high frequency of $m$ and $n$ as syllablefinals is due to their occurrence in infixes. Surely many of the gaps in tine charts are fortuitous. Two systematic restrictions have been noted:

1. i does not occur before a labial consonant unless juncture follows.
2. $p, f$ do not occur before /un/, i.e. *pun, *fun.

In addition to the above CVC syllables, $\partial$ and $e$ each occur in a handful of weak stressed CVC syllables -most of which are contractions, e.g.

| poc | (pón 2c) | 'because I' |
| :---: | :---: | :---: |
| pom | (pó-? әm) | 'because you (sg.)' |
| pon |  | 'because he, they' |
| kol | 'surely' |  |
| yec | (yé- ac) | 'if I' |
| yey | (yé• hi:?) | 'if we (pl., incl.)' |
| setmák | 'bee' |  |

Type $C_{1} \dot{V}\left(C_{2}\right): \quad C_{1}=$ all $C$ except for the genaral restrictions already mentioned.

$$
\mathrm{V}=\operatorname{all} \mathrm{V} .
$$

$$
c_{2}=\text { all } C \text { except } / \tilde{r}, r /
$$

Restrictions:

1. /f/ occurs syllable-finally in only one word -- probably a loan, although the source has not been identified: caff 'tamarind'
2. $/ n /$ does not occur syllable-finally after / $/$.
3. / / is always preceded by $/ \cdot /$ when sym-lable-final.
4. The following vowel-consonant sequences do not occur in the data. $\{e, \dot{z}\} p \quad I\{h, ~ D\}$ eg $\{u, ə, \varepsilon\} v$
5. Morphophonemics

The morphophonemic rules are an ordered sequence of phonological rewrite rules which operate on a string of phonological elements which are termed morphophonemes. The input to the rules is the phonological shapes of norphemes, which are written morphophonemically. The output of any particular rule is without tieoretical significance; the output of the whole set of rules is the phonemic representation of the data.

It is perhaps of interest to note that while order is an important factor in the application and statement of the morphophonemic rules given here, it is not true that each rule must be ordered with respect to every other rule. The rules are presented here according to which portion of the word they apply to: pretonic, tonic, and post-tonic, or inter-tonic syllables. Among the rules of the first group, order is not relevant, nor need these rules be ordered with respect to the other groups. But within the tonic -post-tonic group the rules must be ordered fairly strictiy, aithough there is some flexibility. The single inter-tonic rule appears to be unordered.

Horphophonemic processes found in Nicobarese inclucie both consonantal and vocalic assimilation, loss, anえ metathesis, consonantal dissimilation, vocalic change, consonantal protnesis, semivocalic epenthesis, vowel-semivowel alternation, and vowel length and
nasalization loss.
Three special statements of an upper-level phonoLogical nature which are not technically morphophonemic rules need to be made, concerning (l) the use of special rules (SR); (2) the mechanics of infixation, and (3) macrosegmental stress placement.
(1) Irregularities of a portmanteau or restricted phonological nature are described by special rules, which pertain only to the morphemes or phonological segments of morphemes specifically designated.

The rules, desiznated by $S R$, are presented in. the grammar in connection with the constructional statement which brings the morphemes or segments togetner. The output of the special rules is morphophonemic and hence subject to the morphophonemic rules.
E.g.

SR: $\{-a m-\}+\{v e ́ \cdot\} \rightarrow / / m \tilde{\tilde{\varepsilon}} \cdot / /$ 'those (anim.)'
(2) Morpns with hyphens on either side are infixes; they occur with stems having either the shape CVG or CVCV́C, and are infixed into these phonological strings according to the following rules:
(a) with stems having the shape CVC, the infix has the shape VC and occurs after the initial consonant, e.g.

$$
\begin{aligned}
& \text { //-am- fér•1// } \rightarrow / / \text { famé•l// 'killer' }
\end{aligned}
$$

（b）with stems having the shape CVCVC，the infix has the shape $C$ and occurs after the initial CV， e．g．

$$
\begin{aligned}
& / /-\mathrm{n}-\mathrm{kul} \text { éh } / / \rightarrow / / \text { kunléh } / / \text { 'what is thrown' } \\
& / /- \text { m- tańy } / / \rightarrow / / \operatorname{tamn} \dot{y} y / / \text { 'five only' }
\end{aligned}
$$

In this respect it should be noted that hyphens written with morphs or morphemes are without theoretical or segmental significance；their use is strictly as a designation of whether the affix is a prefix，infix or suffix．Where the context makes this clear the hyphens are omitted．
（3）Every macrosegment has at least one primary or emphatic stress．If none of the morphemes of the macrosegment is inherently stressed，macrosegmental primary stress occurs on the first syllable．In the following examples the word having macroseg－ mental stress is underlined． E．g．
／／acin ap kumyón，to oúk cu，mín？／＇Who will scratch my back？＇
／／つ呈•？る an có•n，tóc．／／＇John is praised by me．＇ $/ / s \varepsilon ́ \cdot l o$ an nam sá•ñ，tó meh．／／＇The rice is spooned by you．＇
In the statement of the morphophonemic rules below the following special symbols are used：（see also symbols and abbreviations，pages 14－16）．

$$
\begin{aligned}
\text { V } & \text { weak-stressed vowel } \\
\text { S } & \text { syllable with primary stress } \\
* & \text { Rule is optional. In general, the optional } \\
& \text { rules a-e less likely to occur in slower } \\
& \text { and more deliberate speech. } \\
& \text { The location in the environment in which } \\
V_{1} \ldots V_{1} \quad & \text { Vowels designated by subscript one are } \\
& \text { identical in all respects, including vocal- } \\
& \text { ic modification features (i.e. length and } \\
& \text { nasalization). }
\end{aligned}
$$

210. Rules pertaining to pretonic syllables. These rules are unordered, with respect both to each other and to the other rules.
211. Vowel loss

The first of two adjacent unstressed vowels is lost.

$$
\breve{\mathrm{V}} \rightarrow \varnothing / \ldots \breve{\mathrm{V}}
$$

E.g.

$$
\begin{aligned}
& \text { //kainrí•r// } \rightarrow \text { kinr̄i•r 'cooking utensil' } \\
& / / \text { siinró•lə// } \rightarrow / \text { sinr̄ólə/ 'butting' } \\
& / / \text { man’íhén// } \rightarrow \text { man’íhén 'what can be stopped' } \\
& / / \text { anah// } \rightarrow \text { ayah 'he' }
\end{aligned}
$$

2. Vowel assimilation \# one

Unstressed $i$ and $\dot{j}$ assimilate to a following labial consonant that is not before juncture.

$$
\check{i} \text {, } \check{i} \rightarrow \check{u} / \ldots I(-+)
$$

E.g.

$$
\begin{aligned}
& / / k i m h i ́ a \cdot t / / \rightarrow k u m h i ́ \cdot t ~ ' o n e ~ w h o ~ f i n i s h e s ' ~ \\
& / / k i m y u ́ n / / \rightarrow / k u m y i ́ n / ~ ' s o l d i e r ' ~ \\
& / / k i v a ́ \cdot y / / ~ \rightarrow / k u v a ́ \cdot y / ~ ' t o ~ w a v e ' ~
\end{aligned}
$$

3. Vowel assimilation \# two

Unstressed schwa assimilates to a following unstressed vowel when a laryngeal intervenes.

$$
\check{\partial} \rightarrow V_{I} / \sim_{H} \breve{V}_{I}
$$

E.g.

$$
\begin{aligned}
& \text { //tə'ayá•l// } \rightarrow / \text { ta'ayá•l/' 'which is green' } \\
& / / \text { mə?ur̂én// } \rightarrow / \text { mu’uréh / 'one who is first' } \\
& \text { //məhacíl// } \rightarrow \text { /mahacíl/ 'deceiver' }
\end{aligned}
$$

4. Dissimilation
(a) One of the two consonants in the sequence
hăh dissimilates to ?

$$
\text { hăh } \rightarrow \text { hă? } \underset{\sim}{f} \text { つăh/_ }
$$

E.g.

$$
\begin{aligned}
& / / \text { mahahó•r// } \rightarrow \text { ma`anó•r } \stackrel{f}{\sim} \text { maha"ó•r 'one who } \\
& \text { drives (something) away' } \\
& \text { //hahán// } \rightarrow \text { /ªhán } \underset{\sim}{f} \text { haª́p/ 'to cause to } \\
& \text { hear; what one hears' } \\
& \text { (b) } \underline{h} \text { before } \text { af or as dissimilates to ? } \\
& h \rightarrow \eta / \ldots \check{a}\left\{\begin{array}{c}
f \\
s
\end{array}\right.
\end{aligned}
$$

E.g.

$$
\begin{aligned}
& \text { //hafál// } \rightarrow \text { /’afál/ 'to cause to run' } \\
& / / \text { hasćh// } \rightarrow \text { /’aséh/ 'to cause to be overcooked' }
\end{aligned}
$$

5. Glottal stop prothesis

Glottal stop is introduced before an initial vowel.

$$
\varnothing \rightarrow ? /+\ldots v
$$

E.g.

$$
\begin{aligned}
& / / \mathrm{an} / / \rightarrow / \mathrm{I}_{\mathrm{an} /} \text { 'He (subj., non-past, vis.)' } \\
& / / \mathrm{am} / / \rightarrow /{ }^{\text {amm } / ~ ' y o u ~(s g . ~ s u b .) ' ~}
\end{aligned}
$$

6. Unstressed VH loss

The sequence vowel-laryngeal is lost before another unstressed vowel in a closed syllable.

$$
\breve{\mathrm{V}} \mathrm{H} \rightarrow \varnothing / \ldots \text { ॅॅC }
$$

E.g.

$$
\begin{aligned}
& \text { mu'umfó } \cdot \mathrm{v} \rightarrow / \text { mumfó•v/ 'one who makes (some- } \\
& \text { thing) cold' }
\end{aligned}
$$

```
mu`umréh }->\mathrm{ /mumréh/ 'one who causes one to be
    startled'
```

220. Rules pertaining to tonic and post-tonic syllables.

Rule six is unordered with respect to all other rules; the other rules are fairly strictly ordered.
7. Vowel lowering

A mid vowel becomes a lower mid vowel after a nasal or a cluster of nasal plus $h$.

$$
\left\{\left[\begin{array}{c}
e \\
0 \\
0 \\
\underline{I}
\end{array}\right]\right\} \rightarrow\left\{\left[\begin{array}{l}
\varepsilon \\
0 \\
0 \\
z
\end{array}\right]\right\} / \mathbb{N}(h)
$$

E.g.

$$
\begin{aligned}
& \text { //lamÍk// } \rightarrow / \text { lamák/ 'one who goes through' } \\
& / / k a n e ́ \cdot t ə / / \rightarrow \text { kané•to 'the binding together' } \\
& / / \text { 'inhó•nə// } \rightarrow \text { 'inhó nə 'a driving away' }
\end{aligned}
$$

8. h loss
h is lost before ?.

$$
h \rightarrow \varnothing / \ldots
$$

E.g.

$$
\begin{aligned}
& \text { yin?a } \rightarrow \text { ní?a 'this (inan., specificative)' }
\end{aligned}
$$

$$
\begin{aligned}
& \text { méh’a } \rightarrow \text { mé? } \quad \text { 'you (sg., emphatic)' }
\end{aligned}
$$

9. Vowel lengthening

A stressed vowel in an open syllable is long unless the next syllable begins with a laryngeal.

$$
\emptyset \rightarrow \cdot / \dot{\mathrm{V}}_{\mathrm{P}} \mathrm{PV}
$$

E.g.

$$
\begin{aligned}
& \text { //félə// } \rightarrow / f \hat{\varepsilon} \cdot l ə / \text { 'be killea' } \\
& \text { //hモ̇ŋəkú•?// } \rightarrow / \mathrm{h} \text { Í•nəkú•?/ 'be expected, } \\
& \text { waited for' }
\end{aligned}
$$

In slow speech a vowel in an open syllable before
$\underline{h}$ is sometimes lengthened:
E.g.
= //píha// $\rightarrow /$ píha/ or /pi•ha/ 'spouse'
10. Assimilation: tonic nasalization

A long vowel after a nasal consonant is nasalized.

$$
\mathrm{V} \rightarrow \tilde{\mathrm{~V}} / \mathbb{N}
$$

E.g.

$$
\begin{aligned}
& \text { //ñá•?// } \rightarrow / \text { ñá•?/ 'to eat' } \\
& / / \text { pumná•mə// } \rightarrow \text { /pumnáa } \cdot \text { mə/ 'a village' } \\
& \text { kanć•to } \rightarrow / \operatorname{kan} \tilde{\varepsilon} \cdot t a / ~ ' t h e ~ b i n d i n g ~ t o g e t h e r ' ~
\end{aligned}
$$

11. Length loss

Length is lost before glottal stop when a vowel follows.

## - $\rightarrow \varnothing / \ldots{ }^{2} \mathrm{~V}$

E.g.

$$
\tilde{n} \tilde{a} \cdot ?_{\partial}(\rightarrow) \tilde{n} \tilde{\tilde{a}}{ }_{\hat{\partial}} \text { 'be eaten' }
$$

$$
\text { Iúu} \cdot ? \text { ? }(\rightarrow) \text { I足?ə 'be chased' }
$$

Note: this ruie is sometimes inoperative in slow speech.
E.g.

$$
\text { ñẵ.?る } \rightarrow / \tilde{\tilde{n}}{ }^{\dot{a}} \cdot ? \partial / \text { 'be eaten' }
$$

Most of the following rules pertain to posttonic syllables; note however that rule eighteen applies both to tonic and post-tonic vowels.

## 12. Netathesis

A sequence Re (where $^{R}$ is any of the resonants ㄱ, ㅍ, n, , ㅍ, or V) is metathesized after a laryngeal.

$$
\text { Rə }(\rightarrow) \text { əR / H_ }
$$

E.g.

Note: This rule is optional when the segments to which it pertains are in word-final position; otherwise it is obligatory:
E.g.

$$
\begin{aligned}
& / / k j \cdot ? \text { nəló } \cdot n / / \rightarrow \text { kó?’ənló•n 'be satisfied' } \\
& \quad(\text { especially of food) }
\end{aligned}
$$

$$
\begin{aligned}
& / / \text { rúhle// }(\rightarrow) \text { rúnsl 'to move up' } \\
& / / \mathrm{v} \cdot \rightarrow \text { คñə// } \rightarrow \text { ) vé•?วก̃ 'to tell' } \\
& \text { //hó•?ua// ( } \rightarrow \text { ) hó•?əu 'be agreeable' }
\end{aligned}
$$

## //có・クuərén// $\rightarrow$ cə́•?əurén 'have something left'

13. Semivowel rule \# one

Unstressed $\underline{i}$ and $\underline{u}$ become $\underset{Z}{ }$ and $\underline{V}$, respectively, after a vowel.

$$
\check{i}, \breve{u} \rightarrow \bar{y}, v / v_{-}
$$

E.g.

$$
\begin{aligned}
& \text { hó- Pou } \rightarrow \text { hó•?əv 'be agreeable' }
\end{aligned}
$$

*14. Vowel loss
An unstressed vowel is lost following an unstressed vowel with an intervening consonant other than $t$ or $r$.

$$
v(\rightarrow) \varnothing / v c^{-t, r}
$$

E.g.

$$
\begin{aligned}
& / / \text { kafítqələ// } \rightarrow \text { /kafíthəl/ 'to flick some- } \\
& \text { thing) up' } \\
& / / \text { náthaka// }(\rightarrow) / \text { náthak/ 'to be bound' } \\
& / / \text { macúhtər̂} \varepsilon / /(\rightarrow) / \text { macúhtor̃/ 'nine' } \\
& \text { hó•’əva }(\rightarrow) \text { hó•?əv 'be agreeable' }
\end{aligned}
$$

15. Semivowel rule \# two

Semivocalic glides $y$ and $v$ are introduced between iə and uə respectively.

$$
\left\{\left[\begin{array}{l}
\text { ia } \\
\text { ua }
\end{array}\right]\right\} \rightarrow\left\{\left[\begin{array}{l}
\text { iga } \\
\text { uva }
\end{array}\right\}\right.
$$

E．g．

$$
\begin{aligned}
& \text { //hó•luə// } \rightarrow / \text { hó•luvo/ 'have a friend' } \\
& \text { //hací•?iə// } \rightarrow / \text { hac⿰㇒́土•iyə/ 'be shortened' }
\end{aligned}
$$

16．Vowel assimilation \＃three
Schwa is totally assimilated to a preceding stressed vowel when a laryngeal intervenes．

$$
\partial \rightarrow \mathrm{V}_{1} / \dot{\mathrm{V}}_{1} \mathrm{H}_{-}
$$

E．g．

$$
\begin{aligned}
& \text { ñáã?ə } \rightarrow \text { ñá? } \\
& \text { fóhəya } \rightarrow \text { /fóhoya/ 'be driven out' } \\
& \text { ว色hə } \rightarrow \text { ’ă้hã 'be alive' }
\end{aligned}
$$

（Note that vowel length blocks this rule：

This rule often does not operate in slow speech or when $V_{I}$ is $i$ or $\underline{u}$ ；
E．g．

$$
/ k u ́ \cdot ? \partial t i / \frac{f}{\sim} / k u^{?} \partial t i / ~ ' t o w a r d '
$$

＊17．Nasal loss
If identical vowels are separated by glottal stop and the first of those vowels is nasalized and stressed，the nasalization is lost．

$$
\bar{v}_{1} \leftrightarrow v_{1} / \dot{\prime} v_{1}
$$

E．g．

$$
\begin{aligned}
& \text { ñă’à }(\rightarrow) / \text { ñá’a/ 'be eaten' } \\
& \text { lǜñ ( } \rightarrow \text { ) /lú?ũ/ 'be chased' }
\end{aligned}
$$

18. $r$ loss
r is lost before a consonant or juncture.

$$
r \rightarrow \varnothing / \ldots\left\{_{+}^{C}\right.
$$

E.g.

$$
\begin{aligned}
& \text { //’asé•rhst// } \rightarrow \text { /’aśe•het/ 'pour in' } \\
& / / \text { ªśerr// } \rightarrow / \text { asḱ// 'to pour' }
\end{aligned}
$$

19. Assimilation: nasalization

A tonic or post-tonic vowel is nasalized if there
is a nasal in the preceding syllable and a laryngeal
intervenes.

$$
V \rightarrow \tilde{V} / N(V) H^{\prime}
$$

E.g.

$$
\begin{aligned}
& / / m a h u ́ u \cdot v o / / \rightarrow / \text { mahú? } v o / \text {. 'a wave' } \\
& / / k a m h u ́ l / / \rightarrow / k a m h u ̄ i l / ~ ' a ~ c o o k ' ~ \\
& / / k i n ? i \cdot c / / \rightarrow / k i n ? i \cdot c / \quad \text { 'a match' } \\
& m \hat{\varepsilon}^{?} \varepsilon \rightarrow / \mathrm{m} \hat{\varepsilon}^{?} \bar{\varepsilon} / \quad \text { 'you (sg.- empin.)' }
\end{aligned}
$$

20. Non-correlative $q$
//q// represents the following alternation:
$q \rightarrow \varnothing / ?$
$q \rightarrow h / E l s e w h e r e$
E.g.

$$
\begin{aligned}
& / / \text { mařs•?qaya// } \rightarrow / \text { mǎs.?ana/ 'be left behind' } \\
& / / f \varepsilon \cdot l q a \eta a / / \rightarrow / f \text { é-Ihana/ 'to kill (someone)' } \\
& \text { ?ət namto.?qara } \rightarrow \text { /’ot namtó? aral 'to not } \\
& \text { play at all' }
\end{aligned}
$$

230. Rule pertaining to inter-tonic segments.
*21. Unstressed or loss
The sequence $\partial r$ is lost between stressed vowels. or $(\rightarrow) \varnothing / \dot{S}(C) \quad$ V
E.g.

$$
\begin{aligned}
& \text { //pó•ytors.?// ( } \rightarrow \text { )/eó•ytó•?/ 'be great (of } \\
& \text { sound)' } \\
& \text { //kano.?lぁro.?// ( } \rightarrow \text { ) /kanó•?Io•?/ 'blessing' }
\end{aligned}
$$

## Chafigir To

OOHEOLOGY
300. Introduction to the forphology

The morphology comprises statements of allomorphy, stem structure, and wora composition; it involves the description of derivation ara irflection.

The major Wicobarese form classes, defined by both morphological and tactic criteria, are noun, classifier, numerator, pronour, verb, demorstrative pronoun, and interrogative.

Worphological processes involved are inflection, which is accomplished by suffixatior, and derivation, which is accomplished by prefixation, infixation, suffixation, and compoundins.

Ka.jor se:nantic contrasts around which the lansuase is organized are grimate/inacimate, which are inherently contrastive in nouns, pronouns, and denonstrative pronouns, ani nersoral/ron-Dersoral, which are inherertly contrastive in rours and are inflectional with pronouns. Description of the noun certers on tro topics: derivation ard classification. Derivation is a major process of roun formatior, most forms consistirs of a. verb root or stem plus an affix. Classificatior of the nouns is tactic, distribution within the noun phrase cefinins common ard proner classes, each of which has arimate and irarimste subclasses.

The classiriers are a morpholorically simple tactic ciass, most meroers of which are also nouns.

The numerator class comprises the series numerators, wioch is a class of numerator roots, and the guantifiers, which are roots which are slso nouns or verbs. Description of the numerator involves presentation of the formation of the series constructions and description of the five numeral inflectional corstructions, two of which also occur with verbs.

The demonstrative pronoun description involves both derivation and inflection; the roots contrast as to proximal/distal, number and animate/inanimate.

The pronouns are a morpholorically and semantically highly complex paradism, at various points within the paradigm showing either implicit or explicit contrast for person, number, case, personal/non-personal, arimate/inanimate, near/renote, visible/non-visible, ard past/ron-past.

Verb description irvolves statements of stem composition and description of the thirteen inflectional constructions. stems are either simple or derived, ard are distributed in three classes: transitive, intransitive, and non-agertive. Five of the inflectional suffixes consist of a stem plus a sirgle suffix; the other seven describe paradisms mich are inflectea for direction/aspect, and which differ with respect to voice.

The irterroratives comorise interrosative roots and derived stems; they are distributed in four tactic posi-
tions and are presested tosether as a morpholorically interlocking set of forms.
400. Nouns

Nouns are identified by their distribution in syntactic constructions. Any word which may occur as head of a noun phrase is a noun.
410. Noun stems

Description of noun stems involves consideration of stem allomorphy and morphemic composition of stems.

1. Stems which are identical to root morphemes, e.g.
\{rón\} 'fruit, product; side'
\{?áp\} 'canoe'
\{?atulín\} 'small pox, measles'
\{?áatu\} 'duck'
\{kinláñpá•\} 'hole'
\{kó•fi\} '(a type of fish)'
\{sampét\} 'papaya'
2. Two small classes of stems having allomorphy,
e.g.
a. patí•? mití? 'house'
saká•mə sikám 'day'
The second form of each of the above pairs
occurs with $\{m i-\}$ 'nominal'; e.5. sumiám 'day
(numerated)'; the first form of each pair occurs in all other environments, e.5. patí.? cin 'my house'.
b. céhen $\infty$ céhe 'thing'
céhe occurs as a bound form in compounds; e.g. céhetí•/ 'tool' (lit: thing-hand), céhecórn 'bird', (lit: thing-tree). céhen is a free form, e.J. céhen 'thing'
3. Stems with augment
liany forms appear to consist of a stem plus a discontinuous affix, which in turn consists of a prefix or infix plus a final //o//. $/ / \partial / /$ occurs with the morpheme $\{-i n-\}$ 'gerund' and in some instances with the morphemes \{ka-\} 'vocative', \{mi-\} 'nominal', and \{ta-\} 'nominal'. wīth \{-in-\} 'gerunc', //z// has a limited contrastive function, distinguishing some forms with $\{-i n-\}$ from forms with $\{-a n-\}$. with the other nominal affixes, //a// appears simpiy to be an augment.

This is probably a problem of a residual nature which would yield to analysis were more data available. For purposes of this description, this analysis consiciers this $\begin{aligned} & \text { sufic } \\ & \text { as }\end{aligned}$ a stem augment; indication of its occurrence is given in every instance that is known.
4. Stems consisting of more than one morpheme.

This study does not attempt to provide an exhaustive study of derivation. There is a large stock of derivatives, many of which are frozen forms containing no derivational marker. The purpose of the discussion of derivation given here is to provide a general acquaintance with the problems and processes involved in the language.

Nicobarese derived nouns are of three types:

1. Compounds.
2. Derivaǐives containing only one root and no derivational marker.
3. Derivatives containing a root plus a derivational affix.
4. Compounds

If one or both of the constituents is itself a derived noun or is three or more syllables in length, the constituents of the compound are written as separate words. While this is somewhat arbitrary it conforms fairly closely to native speaker feeling for the language.

Compounds having only nouns as constituents.
This is a highly productive process of noun derivation; most corpounds that are nouns are of this type.

Compounds in which primary noun roots are the constituents.

Body part words are the most productive roots in compounds. Examples are,
／cénecó•n／＇birả＇；\｛céhen\} 'tioing', \{có•n\} 'tree'
 ／róncó•n／＇fruit juice＇；\｛rón\} 'fruit, vezetables';
\｛co•n\} 'trees, plant'
／kalř̂ə •n／＇leg＇；\｛kál\} 'bar', \{řá•n\} 'foot'
／kú•’patí•／＇door way＇；\｛kú•？\} 'face, surface',
\｛oati••？＇house＇
／kúy kuvs•ko／＇centipede＇；\｛Kúy\} 'head', \{kuvó•ko\}
＇basket＇
Compounds in which at least one constituent is polyworphemic，for example：
／kị！？samã•？／＇chin＇；\｛xí•？\} 'face, surỉace', //samá•?//
＇jaw＇，（\｛sá－0\} 'chiề', \{am\} 'agentive')
／mák ’aláha róncón／＇iruit juice＇；\｛máz\} 'water',
\｛？aláha\} 'body', //róncó•n// 'îruit, vegetables'
／cú•k finت゙á•y／＇frying pan＇；\｛cú•k\} 'place', //finirá•y//
＇frying＇，（\｛fiřáa•y＇to fry＇，（in\} '亏̈rrund')
／tətmík घanã́•vo／＇（banana type）＇；／／tətmín／／＇which doesn＇t look＇（\｛ta\} 'which (adj.)', \{ət\} 'negative', \｛mík\} 'see, look'); //’ané•vəi/ 'being rize',
（\｛刀á•v\} 'be reà, ripe', \{in\} 'gerund')
Compounds consisting of a noun plus a numerai，for example：


／túmnén•to／＇twin＇；\｛tím\} 'bunch', \{névt\} 'two', (schwa stem aubment）．

Compounds consisting of a noun plus a verb, for example:
noun plus verb:
/túm’ã̉hã/ 'berry'; \{túm\} 'bunch', \{?ā̀h\} 'to have, belong to', (schwa stem augment).
verb plus noun:
$/ r \varepsilon ́ \cdot n r o ̄ \cdot \neg / ~ ' n o i s e ' ; ~\{r \varepsilon ́ \cdot n\} ~ ' b e ~ a ~ s u b s t i t u t e ', ~\{r o ́ p\} ~$ 'voice, word'

Such compounds are very infrequent.
Compounds consisting of a locative plus a noun or numeral.

In all such examples the locative precedes the nown, as it does in a locative phrase;

$$
\begin{aligned}
& / \curvearrowright \varepsilon 1 k \varepsilon \cdot 1 / \text { 'armpit'; }\{\varepsilon I\} \text { 'in, on', }\{k \varepsilon \cdot 1\} \text { 'arm' } \\
& \text { /ilúfy/ 'spring'; \{Z̆n\} 'within', \{Iú•y\} 'three' }
\end{aligned}
$$ Derivatives consisting of one root and no derivational morpheme.

Miany nouns are clearly to be identified as verb roots plus regular verb affixes, or as verb affixes attached to bivalent bound roots which are the base of both noun and verb derivatives. The composite form functions as a derived noun and has a meaning which is relatable to that of the morphemes of which it is composed. Examples are as follows:
verb plus suffix:
 untary action'
/řonti/ 'half'; \{řon\} 'be a row', \{t\} 'down, toward', \{i\} 'intransitive stem closing suffix'
verb plus prefix:
/’ətvíc/ 'lobster'; \{ət\} 'not', \{víc\} 'be quick'
/sikéhna/ 'hot season'; \{si-\} ? \{kéh\} 'be dry', $\{\eta\}$ 'perfective', \{ə\} 'noun derivative' /husá•t/ 'basket'; \{hu-\}'(emphasizes type of action)', \{sá•t\} 'to weave'
bivalent bound root plus verb suffix:

$$
\begin{aligned}
& \text { /rà•nti/ 'base'; \{rà•n\} 'foot; to go', \{t\} 'toward, } \\
& \text { down', \{i\} 'intransitive stem closing } \\
& \text { suffix' }
\end{aligned}
$$

- There is one example of a noun derived from a bound noun root plus a verb suffix and a numeral classifier, ie.
/ř̃••10́n/ 'height (of something relatively tall and slender)'; \{ŗ̌・ワ-\} '(large) measure of time or space', \{1\} 'upward', \{nón\} '(classifier with long, slender objects)'

Surprising is the occurrence of verb suffixes with one noun in derived form.
/Áýylə/ 'decoration front of canoe'; \{kúy\} 'head, top', \{I\} 'up', \{a\} 'noun derivative'
412. Derivatives containing a root plus a derivational affix.

Derivational affixes are of two types:

1. Those deriving nouns proper; such nouns have all and only the properties of nouns.
2. A vocative affix, deriving nouns used as vocatives. 4i3. Derivational affixes deriving nouns proper. 414. Productive affixes
\{mi-\} 'nominal' occurs with both noun and verb stems, Qeriving (1) a class of numerable nouns, and (2) a class of derived nouns that occur either with or without a mumerator.

SR: $/ / \mathrm{Ha} / / \rightarrow \varnothing /\{\mathrm{mi}\}$
E.g. \{mi-\} $+\{$ hat's $\cdot m\} \rightarrow /$ mitá $\cdot m /$ 'night (numerated)' mi- - -m- derive numerable nouns from the class of noun stems listed below. The allomorphs are distributed as foliows:
-m- occurs with CVCVC stems, e.g. /tamií•ka/ "hut (numerated)'; /sumkéhyo/ 'summer (numerated)'. mi- occurs with CVC stems, e.g. /mit'́•m/ 'night (numerated)'; /miksf-lo/ 'an arm's length'.

All but two of the nouns derived with \{mi-\} have schwa stem augment when occurring with \{mi-\}. The folIowing list of nouns occurring with \{mi-\} is complete for my data:
Stems requiring schwa augment (cited morphophonemically): ’áfta 'week' sitéhŋə 'summer'

| cing -t | 'moon' | súg. | 'monsoon' |
| :---: | :---: | :---: | :---: |
| kufさt | 'wind' | takín | 'thigh' |
| panám | 'place' | talí•kó | 'hut' |
| píhá•? | 'morning' | tuhé•t | 'village' |

Stems which do not have schwa when occurring with \{mi-\}:
hatá•m 'night' saké•mə 'day'

Examples:

| /n $\tilde{\varepsilon} \cdot t$ tumin $\tilde{\varepsilon} \cdot t o /$ | 'two villages' |
| :--- | :--- |
| /lú•y mi’éfta/ | 'three weeks' |
| /héy mitórm/ | 'one night' |
| \{mi- \} has a collective meaning with five nouns, |  |

all of which occur only with numerals. Fossibly these are also classifiers, but evicience is lacking, e.g.
/’á•p/ 'canoe', e.g. /hén mi`á•pa/ 'one canoe plus contents'
/có•ท/ 'ship', e.g. /héy micó・クə/ 'one ship plus contents'
/kupók/ 'small boat', e.g. /hén kumpó•ka/ 'one small boat plus contents'
/pati•?/ 'house', e.g. /hén mumti̊i/ 'one house plus contents'
/píha/ 'spouse', e.g. /hén mupí•ha/ 'one nuclear family'
\{mi-\} occurs with a small class of noun and verb stems having schwa augment, deriving numerable nouns, all of which may occur either as nouns or as numeral classifiers.

The meaning of the forms derived from verbs is ＇（a unit which is the result of the action of the verb）＇ e．g．

$$
\begin{aligned}
& \text { /miráato/ 'a slice', \{rát\} 'to slice' } \\
& \text { /milí•mo/ 'a parcel', \{lím \} 'to fold' }
\end{aligned}
$$

With noun stems the meaning of \｛mi－\} is ' (a unit of measure）＇，such as＇a＿＿full＇． E．g．

$$
\begin{aligned}
& \text { /puml⿱㇒士口•no/ 'a bottle full' } \\
& \text { /mikéla/ 'an arm's lengtn' }
\end{aligned}
$$

The following lists of stems occurring with \｛mi－\} in this usage are complete for my data．（Citations are morphophonemic．）

Verb stems
ḱ́c＇to pluck，pick（of tó•k＇to be in a row＇ fruit，vegetables，pók＇to bind or string＇
eggs)' rát 'to slice'
láh＇to tear down a whole sá•k＇to bag，sack＇
stalk（of bananas）＇harún＇be wrapped around＇
lím＇to fold＇hayúl＇to bag＇
rík＇to chop or cut＇
Noun stems

| kasón | ＇box＇ | pati．？ | ＇house＇ |
| :---: | :---: | :---: | :---: |
| $k \dot{\varepsilon} \cdot 1$ | ＇arm＇ | pilín | ＇bottie＇ |
| kuvó－ǩ | ＇basket＇ | taníya | ＇cooking pot＇ |
|  | ＇jar＇ | tín | ＇tin＇ |

\{mi-\} is identified in a small class of nouns derived from verb stems; its meaning is one of the following:

Agent: a non-personal doer of the action (usually a specific animal or insect term). All but two nouns of this type have schwa augment, i.e. /milá•c/ 'masseur', /minǵz $\cdot c /$ 'examiner'.

Abstract quality of being: All such derived nouns of this type are without schwa augment. This distribution of \{mi-\} is non-productive; the forms so derived appear to be frozen forms.

> E.g.
/miñ̄亏•kə/ 'leech', \{ñ今•k\} 'to suck'
/minc•la/ 'anklet', $\{9 \varepsilon \cdot 1\}$ 'be in, around'
= /misó•ho/ 'index finger', \{só•k\} 'to point'
/misípa/ 'fruit which has germinated', \{sí•p\} 'to grow'
/mirí•vló•n/ 'sorrow', \{harívlórn\} 'be sorrowful'
/mici•l/ 'deceit', \{haci•I\} 'тo entice, cheat'
/mikán/ 'knowledge', \{?akáh\} 'to know'
$\{-\partial\}$ occurs with a small class of verb stems, either simple or thematic, deriving nouns referring to one of the following:
I. (with transitive verbs) the instrument by which the action is accomplished; or the result of the action;
2. (with intransitive verbs) something having the quality described by the verb.
3. With both stem types there are some noun derivatives whose meaning is only abstractly related to the stem.
E.g.
/tó•pa/ 'tongs', \{tó•p\} 'to grasp' ( $\mathrm{V}_{\mathrm{t}}$ )
/rì -la/ 'a bow', c.f. //harizil/ 'to shoot (with gun)' ( $V_{t}$ )
/ñáhã/ 'injury'; \{ñáh\} 'to beat' ( $V_{t}$ )
/piñérña/'straw'; \{piñ̄z̃n\} 'to cut in pieces' ( $V_{t}$ )
$/ c \varepsilon \cdot c a /$ 'surfboards $:\{c \varepsilon \cdot c\}$ 'to slide' ( $V_{i}$ )
$/$ řo $\cdot$ nə/ 'spine'; $\{\tilde{r} \check{n}\}$ \} 'be in a disjointed row' ( $\mathrm{V}_{\mathrm{i}}$ )
/rá•lə/ 'last (person), youngest'; (rá•1\} 'to be young, new, fresh' ( $V_{i}$ )
 'catch fish' ( $V_{t}$ ), \{k\} '(imperfective)'
/ĺ́kla/ 'device used in climbling'; \{1́nk $\}$ 'to go. via' ( $V_{t}$ ), \{I\} 'up'
 \{1\} 'up'
\{ta-\} occurs with a small class of verb stems and
with a very few noun stems, deriving nouns referring to the following:

1. Something having the characteristic or quality described by the verb. A proportionately large number of such words are descriptive terms for coconut trees.
2. The result of the action. (These are few in number.)
3. An agent which performs the action. For example,
4. /taví•y/ 'sun'; \{ví•y\} 'be hot' $/ \tan \tilde{\varepsilon} \cdot ? /$ 'bone'; \{né? $\}$ 'be hard'
 /tar̂á•n/ .sianted coconut tree; \{rà’n\} 'to be leaning'
/tanüt/ 'humped coconut tree'; \{nüt\} 'be rounded, curved' /talú•k/ 'erect coconut tree'; \{Ińk\} 'to be straight up'
5. /tanúkna/ 'torch of bound coconut leaves'; //núkna// 'to tie coconat leaves'; \{ $\}$ \} 'per'fective', //ə// '(schwa augment)'
6. /taríl/ 'a head louse'; \{ríl\} 'to crawl' /takín/ 'thigh'; \{kín\} 'carry'
Five nouns derived from verb stems by \{ta-\} have schwa augment, i.e.
／tayoho／＇ladder＇；\｛yóh\} 'to climb a ladder' ／tafít．tol＇（tree type）＇；\｛fít t\} 'to strike with a stick＇（questionable derivative）
／taló•liol＇road＇；\｛Ífk\} 'to go through, via'
／taクs．ka／＇coconut＇；\｛つjk\} 'to drink; drink'
／talı́壬•mə／＇cigar＇；\｛I壬m\} 'to roll, wrap around' Not all verb stems occurring with \｛ta－\} are primary, e.g. ／tañúkna／1）＇a torch of coconut leaves＇，2）＇a banana＇；\｛núk\} 'to tie coccnut leaves', \{ $\mathfrak{n}\}$ ＇perfective＇；／／ñúkno／／is not known to occur as a derived formation；it is a regular verb con－ struction．
／tacónkú・ク／＇foreigner＇；\｛cón\} 'be long', \{kú・ワ\} ＇face＇
\｛ta－\} is known to occur with two noun stems and one numeral，i．e．
／taméyol＇fire＇；\｛míy\} 'a fire for warming oneself'
／ta’ú•ku／＇（tree type）＇；\｛’úk\} 'back, bark',
\｛uva\} 'have'
／taśm／＇a fathom，yard＇；\｛sí•n\} 'ten'
\｛ta\} 'grammatical relator' is of questionable classification as a noun deriving affix．It occurs broady as an adjective formant and clause introducer，but it is also found as a prefix in a few derived nouns，occurring with both verb and noun stems，e．g．
with verb stems：
／tarífla／＇animal，beast＇；／／rírla／／＇be crawling＇， \｛ríl\} 'to crawl', $\left\{a_{2}\right\}$＇stative＇

＇be bitter＇
／tə’amí•nu／＇owner＇；／／ªmín／／＇possession，attri－ bute＇，\｛uvə\} 'have'
with noun stems：
／tə̄tú•mu／＇robbers＇；\｛tum\} 'bunch', \{uvə\} 'have'
 ＇oar＇；（\｛ké⿱亠䒑十 $\cdot t\}$＇to row＇，\｛an\} 'instrument')

Contrast between \｛to－\} and $\{$ ta－$\}$ is shown by the following pairs：
／toñ̃́•／＇dry（adj．）＇；\｛ño•r\} 'be dry'
／tañ̄́／／＇dry land＇
／təクo•kə／＇which is drunk（adj．）＇；／／つjkə／／＇to be drunk（passive）＇
$=$
／ta？${ }^{\circ} \cdot \mathrm{k}$ a／＇coconut＇
\｛－an－\} 'instrument' refers to an instrument by which the action of the verb is accomplished．It occurs with transitive verbs and a very few nouns． With verbs it is extremely productive，for example，
－an－～－in－－－n－
－an－occurs with CVC stems，e．g．
／nanát／＇cord＇；\｛nát\} 'to tie'
／fans̊i／＇a whip＇；\｛főh \} 'to whip'; －n－occurs after／／u／／，e．g．
／kunléh／＇what is thrown＇；\｛kulén\} 'to throw';
-in- occurs elsewhere, e.g.
/kinrí•/ 'cooking utensil'; \{karí•r\} 'to make curry'
/si nr̄ó•1/ 'horn (what butts)'; \{siřó•1\} ~ ' t o ~ b u t t ' ~ \{-an-\} has been observed with idiomatic reference with a single noun, ie.
/kan $\dot{\varepsilon} \cdot 1 / ~ ' t u s k ' ; ~\{k \varepsilon \cdot 1\} ~ ' a r m ' ~$
\{-ah-\} 'object' denotes the object of the action of the verb. It occurs only with transitive CVC stems; it is very productive, e.g.
$/$ tahé•c/ 'what is planted'; \{tí•c\} 'to plant'
/sahé•ñ/ 'something minced'; \{sé•ñ\} 'to mince'
\{-in-\} 'gerund' occurs with schwa augmented verb stems, deriving verbal nouns having one of the following meanings:
a. 'Quality or state of being' (intransitive verbs only), eeg.
/ranã-ca/ 'heat', \{rác\} 'be hot'
b. 'Action of __ing', (transitive and intransifive verbs), egg.
/yaníhi/ 'coming'; \{yíh\} 'to come' (Vi.)
/sinū́rə/ 'burning', \{sú•r\} 'to burn' (Vt.)
c. 'An instance of the action' (transitive verbs only), eeg. /niná?ã/ 'dinner'; \{ñá•?\} ~ ' t o ~ e a t ' ~
\{-in-\} also occurs with any numeral expansion, deriving ordinal forms of the numerals. With \{hén\} the derived form means 'unity, oneness'. Schwa augment of numeral expansions with \{-in-\} occurs with numbers up to nineteen and is apparently optional; it occurs suffixed to the final stem in the construction, e.g. /Pinnér•t sí•na/ 'twelth'
\{-in-\} has allomorphs as follows:
-an- - -in- ~ -n-
-an- occurs with intransitive CVC stems, e.g. /vanã́•kə/ 'belching'; \{vá•k\} 'to belch' /manśtta/ 'the setting'; //mítta// 'to set (of sun or moon)' -in- - -n- occur elsewhere, -n- occurs after //u//, e.g. /’unréhe/ 'startledeness'; \{?urદ́h\} 'be startled' /kunléhe/ 'throwing'; \{kuléh\} 'to throw at' -in- occurs elsewhere, e.g. /Pincá•pə/ 'piling'; //hacáp// 'to pile' /singú•lə/ 'darkness'; \{sapúl\} 'be darik! /tiní•pa/ 'pressing'; \{tip\} 'to press'
 'five hundred' /linúu•yə/ or /liṇúu/y/ 'third', \{lú•y\} 'three'. . \{-in-\} derives kinship terms with two nouns, i.e.

$$
\begin{aligned}
& \text { /kaná•nə/ 'sister; female cousin of boy'; \{kán\} } \\
& \text { 'female' } \\
& \text { /kanō•ñə/ 'brother; male cousin of girl'; \{kó•ñ\} } \\
& \text { 'male' }
\end{aligned}
$$

Perhaps \{kán\} and \{kó•ñ\} should be construed as verbs.
\{-am-\} 'agentive', with allomorphs -am- . -m- ~ mə-, occurs with verb and unit numeral stems. With verb stems it denotes a person or thing that performs the action of the verb. With the unit numerals it derives a noun meaning 'only so many'.
-am- occurs with CVC stems, e.g.
/famér•l/ 'killer'; \{fél $\}$ 'to kill'
/samí•p/ 'what grows'; \{sí•p\} 'to grow'
/samóm/ 'ten only'; \{sí•n\} 'ten'
mo- occurs with CVCVC stems beginning with a laryngeal, e.g.

> /mahakín/ 'İisherman'; \{hakín\} 'to fish'
> /mi’iñíh/ 'seller'; \{?iñín\} 'to sell'
> /ma'anér•t/ 'two only'; \{nét\} 'two'
-m- occurs elsewhere, e.g.
/kamhũl/ 'a cook'; \{kahúl\} 'to cook'
/kumcik/ 'taste'; \{kucik\} 'to taste' (Vi.)
/tamníy/ 'five only'; \{taníy\} 'five' Non-productive affixes. Four are mentioned here; there are doubtless others.
a. [ii-\} 'nominal', occurs with one verb stem and one classifier, e.g.
/likín/ 'neck'; \{kín\} 'carry on shoulder' /litá•k/ 'tongue'; \{tá•k\} 'classifier with flat objects'
b. Three prefixes ending in $/ \mathrm{l} /:$ : kil-\}, \{tal-\}, and \{til-\}. Each occurs in one noun, e.g. /kilts.ca/ 'husk of coconut', \{tóc\} 'to husk a coconut'
/talfråhti/ 'type of benana - stalk is very near ground'; //ráhti// 'base, (near down)'
/tilkín•nu/ 'type of basket'; \{kín\} 'carry on shoulders', \{-uva\} 'have'

The vocative affix.
\{ka-\} 'vocative' has two allomorphs;
kə- ~ ka-
kə occurs before unstressed syllables, e.g.
/kəkahé•mə/ 'brother:'
ka occurs elsewhere, e.g.
/kapíhə/ 'wife:'
/kakú•no/ 'child!!
\{ka-\} has been found only with the following
zouns, all of which have schwa augment when occurring with \{ka-\}; however, it is likely that it may occur with any kinship term of address as well as other nouns of personal reference:
\{nól\} 'friend'
\{kah $\varepsilon \cdot m\}$ 'younger brother, sister, or cousin'

| \{kún n , | 'child' |
| :---: | :---: |
| $\{\mathrm{m} \varepsilon \cdot \mathrm{m}\}$ | 'elder' |
| \{píha\} | 'spouse' |
|  | 'parent' |
| \{yó $\cdot \mathrm{m}$ \} | 'master' |

420. Noun Classes

A noun is any word which may occur as head of a noun phrase. Mominal subclassifications are tactically defined, distribution within the noun phrase and the verb phrase each defining separate but overlapping classes. The small subclass defined by verb phrase distribution is discussed in connection with the presentation of the verb phrase.

Distribution within the noun phrase deifines common and proper classes, each of which has animate and inanimate subclasses. The common animate class has personal and non-personal subclasses.

Common and proper noun classes are defined respectively by the potential occurrence or non-occurrence of the noun with aemonstrative adjectives, numeral classifiers, possessive pronouns or the reflexive $\{\tilde{\mathrm{r}} \varepsilon\}$, or the derivative possessive \{uva\}. Proper nouns comprise personal and place names; common nouns comprise all other nouns.

Animate and inanimate subclasses of each of these two major classes are defined by the distribution of the singular demonstrative morphemes anc the classes of reference of the third person sincular animate and inanimate pronouns, as follows:

| singular | 3rd pers. sg. |
| :--- | :--- |
| demonstrative | Dronouns |

animate
inanimate
nóh
níh
$\nu$
$\varepsilon$

As proper nouns do not occur with demonstrative adjectives, the class of reference of the thira gerson singular pos-
sessive pronouns is the defining criterion of animate and inanimate subclassification.

These are formally defined classes; the names animate and inanimate are justifiable only in that the animate class includes all nouns of animate reference of botn the plant and animal kingdom; however, there are some semantically inanimate nouns in the animate class. More precise specification of the membership of the classes is given in the designation of subclass membership, below. 421. The proper animate class consists of all personal names and names of members of the animate class.
E.g. (All examples are morphophonemic.)

| také•n | 'Conscientious' (personal name) |
| :--- | :--- |
| totmák | 'Fot Water' (personal name) |
| vamí•ró•? | 'Word Maker' (personal name) |
| sá•kú•?to | 'Face-like' (canoe name) |

The proper inanimate class consists oî all place names. E.E.

$$
\begin{array}{ll}
\text { mú•s } & \text { 'Mus' } \\
\text { sé•ti la`ó•lo } & \text { 'Small Lapati' }
\end{array}
$$

422. The common animate class has personal and nonpersonal subclasses, defined by the distribution of the dual anc plural demonstrative pronouns, the third person plural possessive pronouns, the third person duat and plural subject and interrogative pronouns, and the numeral classifiers, as follows:

Demonstratives
Bual
Elural

Fersonal ivon－aersonal
ná•
vé•
né• •完

3rd verson mroncuns
jubj．and Inter．Stems
Dual na－

Flural yi－
Fossessive I＇lural ca u
Classifiers
（subclasses in
\｛taka\}
$\{\mathrm{ma} \cdot 7\}$
\｛non\}
non－versonal）
（unclassifiea）
422．1 ihe personal common animate class inciudes only and all cormon nouns having reference to human or spiritual beings，e．5．

| nỉ•？ | ＇chila＇ | kammóp＇barber＇ |
| :--- | :--- | :--- | :--- |
| tarík＇person＇ | sí•？ə＇devil＇ |  |

422．2 The non－personal comion animate class has three subclasses，defined by the distribution of numeral classi－ さiers．

1．Nouns occurring with \｛mé？$\}$＇a plant or tree＇ fhis class includes all nouns namins plants． and trees；e．g．
cón＇tree＇
ta？o•ho＇coconut tree＇
tanưkñ＇banana plant＇
bu：「্̄＇pandanus tree＇

2．Nouns occurring with \｛nón\} 'an animal or long, narrow object＇Two semantic subgroups com－ prise this subclass，as follows：
a．Nouns referring to all non－human members of the animal kingdom，e．E．
ká•？＇fish＇
p 壬－kor̃ $\quad$＇玉goat＇
cehecón＇bird＇
＇inrú•y＇fly＇
b．Nouns referrine＂もo objects winich are＂． relatively lons and slender in shape． while this class is open ended and in－ cludes new loans of definitely long and slender shape，it is necessary to list the membershis in that there are some words which mǐ̌ht be construed to fit into this class but which in fact are in the common inanimate class．The members of the non－personal common animate class which are semsintically not animate are． as follows：

| 2\％${ }^{\text {a p }}$ | ＇canoe＇ | kupsk | ＇row boat＇（w） |
| :---: | :---: | :---: | :---: |
| će．cə | ＇surfboard＇ | $\operatorname{linř}$ ¢̃ | ＇bow（weapon）＇ |
| có．t | ＇ship＇ |  | ＇firewood＇ |
| có•r | ＇arro：r＇ | péns¹ | ＇pencil＇ |
| $\mathrm{f}^{\prime} \cdot 1$ | ＇knife＇ | sanhú？ | ＇Enife＇ |
| hutar | ＇bo：t（weapon）＇ | tinkúy | ＇stick＇ |

/kanủ•c/ 'writing impiement' /tinlưh/ 'cane cord' /kunhíl/ 'file'

Whitehead adds that the words for oar, paddle, and axe are also in this class; data as to what the specific morphemes are are lacking.
\{nón\} has an allomorph //-ón// which occurs as a suffix in derivations with the noun root \{řj- ${ }^{\circ}$ \} 'length, distance' and its verb derivative //mařs•?// 'be long', e.g.
/ř̄••1ón/ 'height (of a long slender object)' /mařร・クtón/ 'be long (of a long slender object)'
3. Unclassified nouns. A single non-personal common animate noun has been identified which occurs with out a numeral classifier in a . numerative phrase, i.e. /Pihón/ 'stone'.
423. The common inanimate noun class includes all other nouns. There are clearly numerous subclasses defined by the distribution of the numeral classifiers; data are lacking to pursue the analysis. Oniy three divisions are made in this analysis, as follows:

1. Nouns occurring with \{1á•?\} 'a body part which is paired', e.g. /mát/ 'eye' /nán/ 'ear' /ké1/ 'arm'
2. Unclassified nouns. Three common inanimate nouns have been identified which occur without
a numeral classifier; a systematic check of all nouns would surely reveal more. The three identified are:
/líi•pər̃e/ 'book' /pir̂úm/ 'lead' /patí-7/ 'house'
3. All other nouns. This class includes nouns referring to objects, fruits (there possibly are subclasses here), actions, abstract qualities, etc. Examples of members of this class are as follows:
/mák/ 'well' /pihiś•?/ 'morning'
/minú•?/ 'mocking' /talá•kə/ 'road'
/panám/ 'country' /cé•ca/ 'wave'
/váh/ 'wound' / ý́n $\mathrm{I}^{\circ}$ oh/ 'log'
4. Residue

There are additionally nine common nouns which occur without a numeral classifier but for which data are lacking to determine the animate/inanimate classification. They are as follows:

425. Common noun suffixation

Any common noun of appropriate semantic content may occur in each of two constructions unique to them among nouns, i.e. with either the reflexive $\{\tilde{\mathrm{r}} \boldsymbol{\varepsilon}\}$ or the derivative possessive \{uvo\}, both of which also occur with verbs.
425.1 The suffix \{uva\} 'have'
\{uvə\}, with allomorphs //uə $\infty$ əuも ~ uə ~ və ~u(ə)

- u// indicates possession. Nouns with \{uvə\} are limited in their distribution to predicate positions. \{uva\} also occurs with verb stems in the possessive construction. The full statement of allomorphs is given here, as follows:

```
        u` occurs with verbs in the possessive construction,
        e.g.
            //kahúllua// ) /hahúlluvə/ 'have something to
                cook'.
            //hayúnnųz// -> /hayúnnuvo/ 'have something to
                hide'
əuə - uə occur elsewhere after stressed syllables
en<ing in a laryngeal.
            әuә occuns finally, e.g.
            //mikáhouó// ->/mikáhavé - mikáhav/ 'have
                faith'
                //ká•`\partialuə// -> /ká`ava ~ ká`\underline{av/ 'have fish'}
    u* occurs non-finally, e.g.
```


'have something reimining'

-'to have given'
və - u(ə) occur elsewhere.
vo occurs following a vowel or when two primary stresses precede in the word, e.g. //kaníhnénva// 'be in danger'
 $u($ ( ) occurs elsewhere finally, e.g. $/ / h o \cdot l \underline{\underline{u}} / / \rightarrow / h o ́ \cdot l \underline{u} /$ 'have a friend' //ho•lua// $\rightarrow$ /ho•luva/ 'have a friend'
Examples of nouns with \{uva\} are as follows:
kó•pu cin. 'I have a can'.
réheva cin min ${ }^{\text {ip }}$ har̃áp. 'I have someplace $I$ must go tonight.'
təla? ${ }^{2}$ nva cin cú?u. 'I have work to do.'
425.2 The reflexive \{ $\mathfrak{r} \varepsilon$ \}
\{re\} is distributed with several classes of words; other than in its occurrence as a verb suffix it forms a class with the possessive pronouns and indicates that the person named as possessor of the noun is the same person as the subject of the clause.

Examples of $\{\tilde{\mathrm{r}} \varepsilon\}$ :
 increasing its strength.'

```
`otko.? cin to n\varepsilon• kinláhañ\varepsilon. 'I was unable
    because of these (my) temptations.'
```



```
    me my tackle box; I want to tie my hook'.
```



```
    from his home.'
```

500. Classifiers

A classifier is any word which may occur in the classifier position in the numerated noun phrase. The class meaning is 'a unit quantity of that denoted by the noun it modifies.'

The data available pertaining to numeral classifiers is not as complete as one mizint hope; full study of each might reveal more restricte distribution than those stated here.

Most of the classifiers also belong to the noun class; thostaka\} a are only classifiers are as follows:

$$
\text { \{tarlnon\} 'a person' }
$$

$$
\{\text { nor\{má-D\} 'an animal; a lons, slender object' }
$$

$$
\{\text { má\{kamén }\} \quad \text { 'a plant or tree' }
$$

$$
\text { \{kanén\} 'kind, type' }
$$

An example of a stem whici is both a noun and a classifier is $\{\operatorname{tah} \delta \cdot 1\}$, seen in the following:
/’á•mheř tahól ’oy/ 'How many pairs (of fish) have you caught?'
/hég tahs•1 kúk/ 'One pair of coconuts.'
Most nouns (except those in the animate personal class other than $\{k u ́ \cdot n\}$ 'one's children') may occur with more tian one classirier, nearly always with a contrast in meaning. Most nouns which ay occur without a classifier when numerated may optionally occur with
a classifier，again with contrast in meaning．These statements apply especiaily to nouns in the inanimate class．
e．g．

| ／hén kúk／ | ＇one coconut＇ |
| :--- | :--- |
| ／hén misá・そo kúk／＇one sack of coconuts＇ |  |
| ／nén miḱł．co kúk／＇one plucked coconut＇ |  |
| ／hén tahó•I kúk／ | ＇one pair of coconuts＇ |

However，some nouns of other classes may occur contrast－ ively with more tinan one classirier，e．E．

| ／hén taṡm フáp／ | ＇a one arm＇s－span wicie canoe |
| :---: | :---: |
| ／hén nov ？á•d／ | ＇one canoe＇ |

The oniy pair of classifiers which do not seem to con－ trast are $\{$ mantik $\}$ and $\{$ taka,
e．e．

| ＝hén taka kú•n／ | ＇one son＇ |
| ---: | :--- |
| ／hén maník ǐún／ | ＇one son＇ |

It should be noted，however，that mańㅑ only occurs with \｛kú－n\} and refers to one's offsprins, while \{taka\} is a general classifier for the personal animate class．

The classifiers are presented here under headings of tine noun class memberskip of the nouns with which．tiney have been found．Limitations of distributions of the classifieers with nouns are largely of semantic consider－ ation．The listins is complete for my data．

Animate personal
manák 'an offspring' (occurs only with
\{kú•n\} 'one's children')
taka
'a person'
Animate non-personal
má•’ 'a plant or tree'
non 'an animal; a long slender object'
Inanimate, animate non-personal
tahs.1
tá-k
'a pair'
'a flat object; money'
Inanimate
kamsó•nุə
kumvo - ho
lá.?
micú•rə
miká-la
mikéla
miḱ́..ca
miláha
milírmo
milírea
milóno
'a boxful'
'a basketful'
'side' (noun); a body pert which is paired, e.E. arm, eje, ear, etc. (classifier)
'a portion, bit'
' slice'
' an arm's leneth (fingertip to center of chest)'
'a fruit or ees'
' a bunch of bananas'
'a parcel, packet'
'somethiñ which has been gluckeã or picked' out (selected)'
'a small piece'


All common nouns

| kanen | 'kind, type' |
| :--- | :--- |
| micá•ma | 'a score $(=20) '$ |
| mihé•rə | 'kind, type' |
| túm | 'a bunch, group' |

600. Numeration
601. The series numerals comprise most of the numerator class. They themselves constitute a subclass due to their occurrence in sequence in counting. The system is essentially decimal, with single words for the numbers from one to nine, and for ten, times ten, hundred, and thousand. Competing systems occur for the numerals from ten to twenty.

The unit numerals consist of two words for one, namely $\{$ kahók\}, which is used only in numeration, and \{hén\}, which is used both in numeration, and in indefinate situations where ' $a$ ' would be a better translation; a subclass $\mathrm{N}_{1}$ consisting of the numerals from two to nine,
 hévhər̂ $\varepsilon$, macúhtor̃ $\varepsilon$ \}; and the numeral for ten, $\left\{s_{i} \cdot n\right\}$. Allomorphy:

$$
\begin{aligned}
& =\text { \{hén\}: hég } \infty \text { hén } \infty \text { hé• } \eta \\
& \text { hén occurs with \{ka-\} 'distributive', i.e. } \\
& \text { /kahén/ 'one at a time'; } \\
& \text { hén occurs with \{ta-\} 'nominal', i.e. } \\
& \text { /tahé• } \mathrm{g} / \text { 'other, another' } \\
& \text { hén occurs elsewhere, e.g. /tahén/ 'one' } \\
& \text { (adj.); /hén/ 'one' (num.) } \\
& \text { \{kahó•k\}: kahó•k fahúk 'one' } \\
& \{n \varepsilon \cdot t\} \text { : } n \varepsilon \cdot \cdot t \infty \text { ’ané•t 'two' } \\
& \text { nét occurs unprefixed and with }\{\text { tə- }\} \\
& \text { 'adj.', i.e. né } \cdot t \text { 'two'; toné't } \\
& \text { 'which is two' }
\end{aligned}
$$

クané•t occurs elsewhere，e．g．上aªn $\overline{\tilde{\varepsilon}} \cdot \mathrm{t}$＇two at a time＇
 －preferred）
\｛macúhtər̃ $\varepsilon\}:$ macúhtar̃ $\varepsilon \infty$ macú•tər̃ $\varepsilon$＇nine＇． （while／macúhtor̃e／was given as the only acceptable form by Mr．James，／nacú•toric／ was given as a freely varying alternant by Mr．Watthew and as the only form by whitehead．）
\｛sí•n\}: -sí•n as sím 'teen, ten' sín occurs when $\left\{s^{\prime} \cdot n\right\}$ is preceded by word juncture，e．5．／sím／＇ten＇；／ś́m kəñ／ ＇ten thousand＇ －sí•n occurs elsewhere，e．g．／kehó•ksí•n／ ＇eleven＇，／macúhtorinssín／＇nineteen＇， ／tasím／＇a fathom，yard．＇
\｛sí•n\} may be $\because$ Ereceded by $\{$ kahóok or a member of class $\mathrm{F}_{1}$ to form the teens from eleven to nineteen， i．e．

$$
\mathbb{N}_{\mathrm{tn}}:+\left(\mathbb{N}_{I},\{\text { kahó } k\}\right)+\{\mathrm{si} \cdot \mathrm{n}\}
$$

Examples：／kahó・ネsí•n／＇eleven＇ ／taníysí•n／＇fifteen＇
The tens from ten to a hundred are indicated by \｛？aná•y\} 'a group of ten' preceded by either \{hén\}, a unit from two to nine，or $\{s i \cdot n\}$ ．The numbers between the tens are indicated optionally by addine a unit numeral
to the appropriate word for the ten, i.e.
$\mathrm{U}:\{$ hé $\eta\}, \mathrm{N}_{1},\{\mathrm{si} \cdot \mathrm{n}\}$
$N_{\text {ty }}:+U+\{?$ aná• $y\} \pm(U,\{$ kahó $k\}$ )
Examples: /hén 'aná•y/ 'ten'
/hévhəテ̄ィ 'aná•y taníy/ 'eighty five'
The numerals from ten to nineteen are more frequently indicated by the construction with $\{s i \cdot n\}$ than by the construction with hég ?anáy. hén ?aná•y has an idiomatic use in which it refers specifically to pairs, e.g. /hén ’anã.y lú•y/ 'thirteen pairs'.

The hundreds are indicated by \{rón\} 'hundred'
preceded by a member of class $U$. The numbers between the hundreds are indicated optionally by adding after \{rón\} either a unit numeral or either of the two constructions for the teens or tens, i.e.

$$
N_{\mathrm{hun}}:+\mathrm{U}+\{\operatorname{rón}\} \pm-\left[\begin{array}{l}
\mathrm{U},\{\text { kahó } \cdot \mathrm{k}\} \\
N_{\mathrm{tn}} \\
\mathbb{N}_{\mathrm{ty}}
\end{array}\right.
$$

Examples: /ñ́e•tón kahó•ksí•n/ 'two hundred eleven' /macúhtor̃e rón hén ?anā•y sát/ 'nine hundred seventeen'
hénón 'one hundred' is far more frequentiy used than sí•n 'aná•y 'ten tens'.
\{rón\} also occurs with \{kahók\}, idiomatically, to mean 'an odd one' (in counting pairs), e.g. 230332 /hén ?anã•y kaió•k, kahó•kón, $\rightarrow$ kó?aró•’./ 'Ko?aro.? got eleven pairs anci an odd one'.

Allomorphy:

$$
\begin{aligned}
\{r o ́ n\}: & \text { rón - -ón 'hunãed' } \\
& \text { rón occurs after unstressed syllables, e.g. } \\
& \text { /macúhtəテ̄є rón/ 'nine hundred'; } \\
& \text { /hévhẽ̃e rón/ 'eight hundred' } \\
& \text {-ón occurs elsewhere, e.ç. (/hé• ทón/) } \\
& \text { 'one hundreã'; /tafú•lón/ 'six hundred' }
\end{aligned}
$$

The thousands are indicated by \{koñ\} 'thousand' preceded by any of the numeral constructions thus far presented or a unit numeral other than $\{$ kahó $k\}$. To indicate the numbers between the thousands, $\{k=\bar{n}\}$ is followed by any of the above constructions or any unit numeral, i.e.

$$
\begin{aligned}
& N_{U \text { _hun }}: N_{h u n}, N_{t y}, N_{t n}, U \\
& N_{n u m}:+N_{U \text {-hun }}+\{k ə \bar{n}\} \pm\left\{\begin{array}{l}
\{\text { kahó } k\} \\
N_{U-h u n}
\end{array}\right.
\end{aligned}
$$

## Examples:

Construction


$$
\left(N_{t n}+\{k ə \tilde{n}\}+U\right)
$$

$(U+\{k ə n ̃\})$
 'one hundred Forty four thousand two hundred thirty one'
Form $/ n \tilde{\tilde{\varepsilon}} \cdot \operatorname{tsí} \cdot n$ keñ tanáy/ 'twelve thousand five'
/hén kəñ/ 'one thousand'

Allomorphy:
\{kəñ\}: kəñ $\underset{\sim}{f} k ə \tilde{n}$ 'thousand'
Certain of the numerators presented above occur in derivative constructions. Derivatives with \{-am-\} 'agentive' and \{-in-\} 'gerund' are nouns and are described in the discussion of noun stems. The unit numerals also occur with the prefix \{ka-\} 'distributive'; the resulting form seems to be a numeral but is too infrequent in the data for definite classification; e.g. /kahén/ 'one at a time', \{hén\} 'one' $/ k a{ }^{\prime} a n \tilde{\varepsilon} \cdot t /$ 'two at a time', \{né•t\} 'two'
 'Each of you take three torches so that you will not be burdened.'

Non-series numerators are termed quantifiers; there are two classes, referred to as $Q_{1}$ and $Q_{2}$. . 620 The quantifier class designated by $Q_{1}$ shares all the distributional properties of the series numerator class excluding occurrence in the series. \{?á•m\} 'How many' is an exception; it occurs only sentence initially. The class consists of the following four morphemes.

'How many children do you have.'
\{haróhtúm \} 'some', e.g. /haróhtúm tá•k kahé•?ti man, to rupir ${ }^{-7 . / ~ ' G i v e ~ m e ~ s o m e ~ m o n e y . ' ~}$
\{ró•1\} 'many', e.g. /ró•1 má•’ có•n/ 'many trees'
\{tahé•ŋ\} 'others, another', e.g. /tahé•ŋ nóy ká・ク/
'ancther fish'
$Q_{2}$ is a set of six morphemes relating to size which are distributed with a common set of suffixes, among which are three of the suffix configurations of the Wumerator inflectional constructions (sec. ): incremental, incorporated object, and qualifier. Four of the members of $Q_{2}$ are also members of the verb stem class $S_{3}$; they are called quantifier verbs $\left(V_{q}\right)$ and are as follows:

| \{pó-y | 'be many, great, much' |
| :---: | :---: |
| $\{k \dot{\tilde{u}}-n\}$ | 'be small, few' |
| \{řahéc \} | 'be little (in amount)' |
| \{mařs.? | 'be Iong' |

The other two members of $\dot{Q}_{2}$ are also nouns; they are called̃ quantifier nouns ( $\mathrm{I}_{\mathrm{q}}$ ) and are as follows:
 There are two sufifixes, $\{\varepsilon ́ n\}$ 'quantity' and $\left\{a_{8}\right\}$ 'size', which are restricted in distribution to occurrence with three members oi $\hat{e}_{2}:\{\underline{D} \cdot \bar{y}\}$, $\{k \dot{u} \cdot n\}$, and \{ró-k\}.
\{́n\} 'quantity' ع́n - yén
yén occurs after a palatal consonant; the single example is //r̃ahécýzn// 'be little' (of a non-countable substance.)
én occurs elsewhere, i.e.

$$
\begin{array}{ll}
/ / \mathrm{pó} \cdot y \varepsilon ́ n / / & \text { 'be many' } \\
/ / \text { kú•nદ́n// } & \text { 'be few' (of countable objects) }
\end{array}
$$

The verb stem members of $Q_{2}$ with $\left\{\varepsilon \varepsilon_{n}\right\}$ and $\left\{\sigma_{8}\right\}$ are distributed like a numerator plus a classifier, e.g. //pó•yén minr̂érà an.//. 'It has many sides.' (Greatsize side it.)
//kî́nén nun né. kanú•c.// 'There are few pencils.' (Small-size they these pencil.)
//kúr nə an nam taríik.// 'The man is small.' (Smallsize he the man.)

Two of the $Q_{2}$ stems, $\{p o \cdot y\}$ and $\{r j \cdot k\}$, occur suffixed with $\left\{t_{i}\right\}$ and \{tá•k\} when they refer to objects which are, respectively, relatively long and narrow, or broad. \{ti\} has been found only with these two stems and means 'lons and narrow'; \{tá k$\}$ is identified elsewhere as the classifier for broad, flat objects. E.g.
//pó-ytá•k ən yam mís.// 'It is a wide table.' (Great-breadth it the table.)
//pó•yti on nam tahé.1.// 'It is a wide river.'. (Great-width it the river.)
//irs•ktá•k ən nín mi•s?// 'What is the width of this table?' (How-great-breadth it this table?)
630. Numerator Inflection

The unit numerals and the quantifiers occur with five types of inflectional suffixes: incorporated object, adverbial, attributive, incremental, and qualifier. Two of these suffix types - the incorporated object and the incremental - also occur with verbs in essentially the same usage.

Numeral inflection pertains to unit numerals and quantifiers. With bi-morphemic numerators (or larger) the suffix is affixed to the unit numeral. The symbols used below to designate the stem are as follows:

Numerators (Unit Numerals, $Q_{1}$ ): NUM
Quantifier verb: $V_{q}$
Quantifier noun: $N_{q}$
631. The Incorporated object quantifier consists of a numerator or a quantifier verb plus $\{\underline{q} \boldsymbol{q}\}$ 'incorporated object' followed by a directional suffix ( $D$ ) or \{hot\} 'into, to the interior'. \{qə\}, the directional suffixes, and $\{$ hət $\}$ aiso occur with verbs.

Incorporated object quantifier:

$$
\left.\begin{array}{c}
\text { NUI } \\
V_{q}
\end{array}\right]+\{q \partial\}+\left\{\begin{array}{l}
D \\
\{\text { hət }\}
\end{array}\right.
$$

The following special phonological rule pertains to \{qa\}:
SR: $\quad \hat{a} / \ldots \mathrm{Ca}$
I.e.
$/ /$ pó•yqəta// $\rightarrow /$ pó•yhata/ 'do many towara'
'ihis paradigm expresses direction or aspect pertaining to the number or quentity of actions accomplished with respect to an unspecified object, which may in fact be clarified by a satellite phrase. The examples should clarify this meaning. E.g.
//fénhot cin, fóhə.// 'I am beaten four times.'
(Four-in I, beaten.)
//lú•yqal mitó•m cin, i ró•y có•n.// 'I was up. in a tree branch three nights.' (Three-up night $I$, in branch tree.)
//r̃ahécq̧ata man, to cí•ni, Dín cu.// 'Give me a little sugar.' (Iittle-toward you, of sugar, to me.)
//haróhtúmqəta man, to pirûúm.// 'Give me some
lead.' (Some-to you, of lead.)
//hénȧñ cin, fír•I tarík.// 'I have killed one man.' (One-out I, kill man.)
//Iú•yqoñ cin.// 'I caught three.' (Three-out I.)
Ferhaps a more literal translation of this last example would be "I 'outed' three." This is the sense of the predication in each of the above examoles; the specific object or type of action referred to by the Incor;orsiteć object quantifier is stated optionally.
632. The Adverbial numeral consists of a numerator plus either of the morphemes \{héh\} 'time (of repetition)' and \{ván\} 'time (of going) '.

$$
\text { Adverbial numeral: NUM }+-\left[\begin{array}{l}
\{\text { háh }\} \\
\{\text { ván }\}
\end{array}\right.
$$

The Adverbial numerator indicates the number of times an action is accomplished. Its distribution is predicatonal, either in the clause nucleus or satellite. Egg.
//héghéh ok yin ’inyú•nə.// 'Once there was a fierce battle.' (Cne-time it fierce battle.)

walking.' (lany-time I, walk.)
//ª́•rván om, cúh řáñci?// 'How many times did you go to Ranchi?' ([How many]-time do-you, [go to] Ranchi?)
//ró-Iván cine, cúh ’íntعá•.// 'I sent to India many times.' (Many-time I, go India.)
//míkan cine, hénhóh, no ?uláya.// 'Once I saw him stealing.' (Sֵee-him I, onetime, he stealing.)
633. The Attributive numeral consists of a numerator plus $\left\{\partial_{7}\right\}$ 'attributive.

Attributive numeral: NUM $+\left\{\partial_{7}\right\}$

The Attributive is the obligatory form of an otherwise unsuffixed numeral when it modifies and unclassified noun and occurs either directly before the noun or sentence finally.
 have?' ([How many] sinker you yourself?)
//ké•?tə lí•par̃e cu man haroóhtúmə.// 'Give me some books.' (Give-to book me you some.)
//lú•yo kahé•? man to lí•par̃e.// 'Take three books.' (Three [what is taken] you of book.)

Compare
//lú•y má• kahé•’ man to có•n.// 'Take three plants'
(Three classifier [what is taken] you of plant.)
//né•to lí•par̃e cin.// 'I have two books.' (Two book I.)

Compare
//né•t miḱćca ’uhó• cin.// 'I have two eggs.' (Two classifier egg I.)

Note the following example of numerators modifying unclassified nouns but occurring neither directly before the noun nor sentence-finally:
//mík patí• cin fén, i kú•y řs•nə.// 'I see four houses on top of the hill.' (See house I four, on top hill.)
 books.' (Choose-wish-self you some of book.)
634. The Incremental quantifier consists of a numerator, a quantifier verb or a quantifier noun plus either of the directional suffixes \{1\} 'up' or \{t\} 'toward; down', plus the suffix configuration of the Reflexive passive verb, i.e. $\left\{\sigma_{6}\right\}$ 'reflexive stem extending suffix' and \{ř $\}$ 'reflexive'.

Incremental quantifier: $\left.\begin{array}{r}\mathrm{V}_{\mathrm{q}} \\ \\ \mathrm{N}_{\mathrm{q}}\end{array}\right]+\left[\begin{array}{l}\{I\} \\ \{t\}\end{array}\right]+\left\{\partial_{6}\right\}+\{\tilde{r} \varepsilon\}$
It is possible that other directional suffixes may occur in this construction; these are the only two attested. The suffix configuration here is identified as the same as that of the Reflexive passive verb because in addition to sharing the same shape the two constructions also share the meaning of increment of the stem. The Incremental quantifier occurs adjectivally or predicationally, with or without a following attributive noun. E.g.
//féntore sumkám cin, kapáh.// 'I will die in four days.' (Four-increasing-to day I, die.)
//tín cin min, umúh, i $\partial p$ to tafú•Itor̃ $\varepsilon$ sumkám.// 'I will be there in six more days.' (Arrive I will, there, in it of six-increasing-to day.)
//tańáyləṛe máyl an.// 'The meter has reached five miles.' (Five-increasing-up mile it.)
 in the river is increasing.' (Great-increasing it the water in the river.)
635. The Qualifier quantifier consists of a numerator, a quantifier verb or a quantifier noun plus either of the morphemes \{tít\} 'remain' or \{vát\} 'portion, share'. Qualifier quantifier: $\left.\begin{array}{c}\mathrm{N}_{\mathrm{q}} \\ \mathrm{N}_{\mathrm{q}}\end{array}\right]+\left[\begin{array}{l}\{\text { tít }\} \\ \{\text { vát }\}\end{array}\right.$

This may well be a residual rather than a formal class of suffixes; there is no logical reason why the two suffixes could not co-occur, however they are not so attested - neither with numerals nor with verbs, with which \{tít\} also occurs. The quantifier with \{tít\}. indicates the number remaining or left over; with \{vát\} it indicates the number, quantity or size of portions. The qualifier quantifier occurs predicationally or in the numerated noun phrase.
E.g.
//s壬mtít nun.// 'Ten remain.' (Ten-remain they.)
 left' (Three-remain [flat object classifier] remainder ie.)
//pó•yvát man, méh?o.// 'You have a big share.' . (Great-share you, you.)
The evidence of the occurrence of \{vát\} with numerals is from Whitehead:
hey vat tamkìna tan haun. 'One leg (lit. thigh) of this pig (as food. .'
700. Demonstrative pronouns

The demonstrative pronouns consist of a paradigmatic set of twenty forms based on five demonstrative roots with or without either or both of the affixes \{am\} 'distal' and \{? $\left.{ }^{2}\right\}$ 'specificative'. They are distributed both adjectivally and pronominally.

Categories of animate-inanimate (See Mouns, Sec.
) and number are implicit in the demonstrative stem (DS) ; without affixation of \{-am-\} the demonstratives are proximal, as follows:
\{nóh\} 'this (ss. anir..)'
\{vé•\} 'these (pl. anim.)'
\{ná-\} 'these (au. anim.)'
\{nín\} 'this (sg. inan.)' ฤíhonúh
gúh occurs with \{am\} 'distal', e.g. /namúh/ 'that'
níh occurs elsewhere, e.g. /níh/ 'this'
\{né.\} 'these (pl. inan.)'
In some descriptive constructions where predication is effected without a verb the demonstrative stems occur in the subject phrase with a force only of number and anim./inan. designation. It is only in this usage that the deronstratives do not refer to objects that are necessarily visible and in view, e.f.
/Pət sinróolu nun né $\cdot$ ha’ún./ 'Pigs have no horns.' /totlé•n ’on níh milíp./ 'Selfishness is bad.' /ma"aláhava yin vé• kupáh./ 'The dead have spirits.'

Demonstrative force is achieved by use of a second identical demonstrative following and in apposition to the subject phrase, e.g.

 pretty.'
710. Distal forms of each of the above demonstratives are derived by the morpheme \{am\} 'distal' by the following construction:
$D S_{d}:\{-a m-\}+D S$
(SR: $\{-a m-\}+\{v e ́ \cdot\} \rightarrow / / / \tilde{\varepsilon} \tilde{\varepsilon} \cdot / / '$ those (anim.)' This form could be treatec̃ as //mi-// + //vé/// with a morphophonemic rule for loss of //iv// before a stressed vowel, then regular mid-vowel lowering after a nasal would account for the $/ \varepsilon /$. But while there is no evidence contradictory to such an interpretation, it is simpler to write the special rule given here.) E.g. /namóh/ 'that (anim.)' /min $\tilde{\varepsilon} \cdot /$ 'those (pl. inan.)' Allomorphy:

$$
\begin{aligned}
& \{\text {-am- }\} \quad-\text { am- } \infty \text { mi- } \\
& \quad \text { mi- cccurs with stems beginning with } / / n / /, \\
& \quad \text { e.g. /min } \dot{\varepsilon} \cdot / \text { 'those (pl. inan.)' } \\
& \text {-am- occurs with stems beginning with } / / \mathrm{y} / / \text {, } \\
& \quad \text { e.g. /namúh/ 'that (inan.)' }
\end{aligned}
$$

The distal demonstratives are not as general in usage as are the proximal stems; a by-product of this fact is that proximal forms are about two and a half times more frequent in the data than are distal forms.

When used attributively, the primary force of both proximal and distal unemphasized demonstrative pronouns is one of definitizing and number designation, with a secondary force of proximal-distal.
/kavál ’ihón yin, mé . $\tilde{n}$ î.?./ 'The children are throwing stones.'
 Nicobarese say the coconut is chief.'

/pitór̃, katá•nlo miné. lónpén cu man./ 'Feter, press my long pants.' (Peter press these [Iong pantsl-my you.) 720. The emphatic morpheme $\{7$ a\} '(specificative)' is used when the speaker is pointing to or somehow emphatically singling out the object in question.

Emphatic:


Examples: /nīā/ 'this (sg. inan., specificative)' /mé?a/ 'those (pl. anim., specificative)'
$/ v e ́ ? a / ~ ' t h e s e ~(p l . ~ a n i m ., ~ s p e c i f i c a t i v e) ' ~$

The emphatic demonstratives are quite specific in meaning; they have none of the general usages of the non-emphatic forms. Ihese are the least frequently occurring demonstratives in the data.

## Examples:

 are reddish brown.'

'This stick is longer than that stick.'
It may be noted here that $\{2\}$ also occurs with the demonstrative adverbs \{híh\} 'here' and \{múh\} 'there', a pair of words which show implicit contrast for proximaldistal.

It is in the pronominal use of the demonstratives that the proximal-distal contrast is maximized.
/tarík ’aláha cu yin, vé./ 'These are my servants.' /káp ’an namóh, kú•’ hí•’, tətmák./ 'That's a tortoise in front of us, Tatmak!'
 tree I planted.'


this color.'
/sá・ワ el mát rón nóh ’ən, namő’ã./ 'That (color) is like (the color of) this fruit.'
730. Demonstrative contractions
\{nam\}, \{nín\} and \{ $\left.\mathrm{n}_{\mathrm{n}}^{\mathrm{n}}\right\}$ \} are contracted when they occur with \{ 1 in\} 'to, in' and \{té\} '(grammatical relator)'. The six forms, presented phonemically, are as follows; they are best described by allomorphy of the demonstrative.

|  | nam | 习íh | no์h |
| :---: | :---: | :---: | :---: |
| tə | $t=m$ | ton | ton |
| ${ }^{\text {Pi }}$ | "im | ? n | 2in |

The allomorphic statement is as follows:

| \{nam\}: nam ~m | 'The' |
| :--- | :--- | :--- |
| \{níh $: ~ n i ́ h ~-~ n ~$ | 'This (inan.)' |
| \{nóh $: ~ n o ́ h ~-~ y ~$ | 'This (anim.)' |

The longer allomorph occurs when preceded by juncture; the shorter allomorph occurs elsewhere.
800. Fronouns
810. Personal pronoun stems (inciuding two third person non-personal stems as shown below) are inflected for five cases: subject, interrogative, subordinate, ŋossessive, and emphatic. (These labels are not fully adequate but are a compromise between whitehead's terms and the functions of the pronouns.)

Whe ten pronoun sters occurring in the paradigm are semanticelly complex, showing inplicit contrast for categories dirawn from three persons (first, second, third), three numbers (singular, dual, plural), inclusive/exclusive (relevant to first person non-singular only), and in tie third person, animate/inanimate, personal/non-personal, very near and remote.

Dual and plural are explicitly marked in the first and second person and in the third person in the subject case. 'the tnird person dual and pluaal personal morpheme \{ca\} does not occur in the subject case, the respective second eerson forms being used insteau. Inciusive forms occur only in the possessive and emphatic cases, in which cases the first prson dual anc first person plural steas are specificaliy exclusive. The third person singular very near morpheme occurs only in the subject case.

Table I shows the first and second person pronouns in $a l l$ five cases; the thira yerson forms are complete

| Meaning: person morphemes | Person | Number | Subject 'non past, vis. $1(1 n)^{1}$ | Interrogative $\left(\theta_{1}\right)^{2}$ | Sabordinate ( ${ }_{0}{ }_{i}$ ) | Possess- ive unmarked | Emphatic | , . ${ }^{?}$ ? ${ }^{\text {] }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 188. | \{cu\} | - | c int | - cu | - 0 | cu | ou | $\cdots{ }^{\prime} \cdot{ }^{\text {? }}$ |
| 2ag. | (meh) | - | m ana | - meh | - m | meh | meh | $\cdots{ }^{\circ} \mathrm{O}$ |
| 1du. (excl. in' poss. \& emph.) | (ay) | (a) | $\emptyset$ a $n$ | a ay ah | - ay | ay $\varnothing$ |  | $\begin{aligned} & \because ?^{?} \theta \\ & \ddots ?^{\prime} \theta \end{aligned}$ |
| 1 inclusive | (h) |  | - |  |  | $\mathrm{h} \quad \mathrm{am}$ |  |  |
|  |  | (1.) |  | - | - | h i.9 | ay 1.7 | $\cdots{ }^{\circ} \mathrm{\theta}$ |
| $\begin{aligned} & \text { lpl. (exol. in } \\ & \text { poss. \& emph.) } \end{aligned}$ | $\left\{y_{1}\right\}$ |  | $\emptyset 1$ n | - y ( in | - y | $\varnothing$ in | $\varnothing$ in | $\cdots{ }^{\prime} \cdot{ }^{\circ}$ |
| 2nd \& 3rd pers. in subj.; elsewhere 2nd | $\left(y_{2}\right)$ |  | $y 1 \mathrm{na}$ |  |  | y $\mathrm{i}^{\text {•? }}$ | $y \quad$ i"? | $\cdots{ }^{\prime} .{ }^{\circ} \mathrm{B}$ |
| 3non sg., (pers.) | (ca) | - | - | a ca | -3 | ca | ca | $\cdots{ }^{\prime} \cdot{ }^{\prime}$ |
| 2nd $\& 3$ rd in <br> aubj. $; ~ e l s e w h e r e ~$ <br> 2nd | (n) | (a) | n a $n$ | a n ah | a $n$ | n .a.? | n a.? | $\cdots{ }^{\prime} \cdot{ }^{\circ}$ |
| 3sg. (near) | $\left(\theta_{2}\right)$ | - | - ni | - | -3 | - | - |  |
| 3ag. an. | $(0)^{4}$ | - |  | $\theta$ apah |  | 0 | apah | $\ldots 7{ }^{3}$ |
| 38g. in. ; | $(\varepsilon)^{4}$ | - |  | - opuh |  | $\varepsilon$ | apuh | $\cdots{ }^{\prime} \cdot{ }^{\prime}{ }^{\circ}$ |
| 3 rd | $(n)^{4}$ | (u) | n. ${ }^{\text {a }}$ n | - n un |  | $\varnothing$ u | an uh | $\cdots{ }^{\prime} \cdot{ }^{\circ}$ |

Table If Personal pronoun morphemic composition
in the subordinate, possessive, and emphatic cases, but additional subject and interrogative forms are presented in section 811 . Person, number, and case allomorphs are presented in combination.

The meanings of the number morphemes are as follows: \{a\} 'dual, personal', \{i\} 'plural, personal', \{u\} 'nonsingular, non-personal'.

While all the permissible morpheme sequences are presented in Table $I$, it is useful to summarize the constructions represented in the table, as follows:

|  | Subj. | Inter. | Subor. | Foss. | Emph. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sg. | $+\mathrm{P}+\{$ in $\}$ | $+\{0\}+P$ |  | +P | $+\mathrm{P}+\left\{\begin{array}{l}\text {, . ? }\end{array}\right.$ |
| Non-sg. | $+\mathrm{P}_{\mathrm{p}}+\mathrm{N}+\{$ in $\}$ | $+\{\partial\}+\mathrm{P}_{\mathrm{p}}+\mathrm{Ni}$ | $+\{\partial\}+p_{p}$ | $+\mathrm{P}_{\mathrm{p}}+\mathbb{N}$ | $+\mathrm{P}+\mathrm{IN}+\left\{{ }^{\prime}\right.$. ${ }^{\text {? }}$, $\}$ |

Pricu, meh, $a, 0, \varepsilon\} P_{p} \rightarrow\left\{a y, h, y_{1}, y_{2}, c a, n\right\} \mathbb{N} \rightarrow\{a, i, u\}$ It may be noted at once that not all possibilities generated by these simplified, generalized constructional statements do in fact occur; the limitations and possibilities are shown by Table I.

Note also that the same construction generajes both the Interrogative and Subordinate singular pronoun while in Table I different number allomorphs are shown to occur in the two forms. As is alluded to in footnote 2 to Table I, the salient environmental difference is that the longer allomorphs are optional variants when the pronoun is the head of a subject phrase (see footnote 2 for examples).

Table Ib：Sumpary of morphemes occurrine in the pronoun constructions presented in Table I．
iiorpheme
Allomorphs
fieaning

## Ferson liorphemes

| cu | c－cu | lsg． |
| :---: | :---: | :---: |
| meh | mman | 2sg． |
| ay | a～ay． | ldu．（excl．in poss． and emph．） |
| h | h | 1 incl． |
| $\mathrm{Y}_{1}$ | J $\varnothing \varnothing$ | lpl．（excl．in poss． and emph．） |
| $\mathrm{y}_{2}$ | ヌ | ```2 & 3pl. pers. in subj; elsewhere 2pl. pers.``` |
| ca | ca | 3 non sg．，pers． |
| n | n～ลn ¢ | with \｛a\} 'du., pers.' <br> together with \｛in\} <br> ＇non past，vis．＇： <br> $2 \dot{\text { ex }} 3$ ；elsewhere： 3 |
| $\partial_{2}$ | ${ }^{2}$ | 3sg．near |
| $\bigcirc$ | D～ajah | 3sg．anim． |
| $\varepsilon$ | ع－大̄］uh～aŋuh | 3sg．inan． |

Bumber，シersonal／ion nersonal iorphemes
a
a～ah～ล•？$-\varnothing$ du．，pers．
i
i～ih～i•？
pl．，pers．
u
u－uh
non s5．，non pers．

Table Ib, concluded
Horpheme illomorphs Ieaning

## Gase Rorphemes



## Pootnotes to Pable I:

I. jubject case morphs endiñ in a vowel occur too. infrequently in the data to allow definitive analysis. However, it seens to be true that tre vowel optionally occurs if the pronoun is the unmodified head of the subject pinrase; otherwise it does not occur. E. E. //tolalé.' takó? $\partial \mathrm{p}$ (i).// 'It is very strong.'
 cu.// 'The child's head is hot; he has a fever. I think.'

But //təvá•y ən "ih sakámə, níh.// 'Today is a nice day.'
2. Final $V$ and $V C$ of the interrosative proncuns, like the final vowel of subject case =orphs, occur optionally, and then only when the pronoun is the head of the subject phrase.
玉. g. //rá•ino yíh emeh:// 'where have vou come irom?'
 are you?'

Eistorically the lons inverrosative forms may well have developed from the sequence short. interrogative plus emphatic, as shown in the sequence $\partial m$ mf $\boldsymbol{q} \tilde{\varepsilon}$ above.

The occurrence of final $h$ in most of the interrogative forms is an interesting fact which does not vield to synchronic analysis.
3. Corresponding third person pronouns do not occur in the subordinate case. Functionally the particle \{nə\} 'subordinate third person' is substitited.
4. With the interrogative morpheme $\left\{\partial_{1}\right\}$ these morphemes ail have a component 'visible'. An alternative analysis would be to consider the third person interrogative stem morphs as allomorphs of the demonstrative pronouns, all of which have a component 'visible'. Either interpretation seems acceptable.
5. //anåh"a// $\rightarrow$ /ªná?ã/ is often contracted to /?aŋ/.
6. Stress invariably occurs on the preceding syllable.

It is interestinf to note that allomorphs of the dual and plural morphemes have the shape $V_{1} h$ in the interrogative case and $V_{1} \cdot \rho$ in the possessive case. Complementation of $/ \% /$ and $/ h /$ with respect to presence or absence of preceáing vowellength was mentioned in the discussion of these phonemes. Cne could on the basis of this complementation partially regularize the shapes of these morphs by various morphophonemic solutions, but the fact remains that the dual and plurai morphs differ consistently in the interrogative and yossessive cases by the same phonological factor, which is not seamentable.

The meaning of the morpheme $\{\sigma$ \} 'near', found only in the one form oni 'third singular, non-past, visible, subject', is not in all cases clear. In most occurrences $\{\partial\}$ seems to indicate that the object is quite near the speaker. If a proximal demonstrative is used with a third person singular pronoun, $\{0\}$ must be used rather
than／／a／／of $\{\varepsilon\}$ and $\{0\}$ ．With distal forms of demon－ stratives／／a／／must occur．

E．g．／／hú•？kə nap ñí•？，tan rú•lnə on níh tañú•knə．／／ ＇Call for the boys，for this torch is about to burn out．
／／káp an，namóh．／／＇That is a tortoise．＇
Compare／／talú－kketi an nam フinkIn cu．／／＇My float is going down．＇（in fishing）
with／／talúb•ləク习 on nam Pirkín cu．／／＇My float is coming up．＇
But note／／cá•tlə⿰习习 an nam nír•？，ts cu．／／＇The boy is being lifted by me．＇
However，some occurrences of \｛a\} contradict this interpretation，e．g．
 bcok is far from here．＇

811．Tense／visibility morphemes with third person pronouns．
Subject case morphemes contrasting with \｛in\} 'nonpast，vis．＇，are \｛p\} 'non-past, not vis.', and \{k\} ＇past．＇These tense／visibility morphemes occur only with third person pronoun morphemes．The subject case forms derived with $\{\underline{p}\}$ and $\{k\}$ occur as stems in the derivation of a set of what appears to be vestigal in－ terrogative case forms．As with the subject and inter－ rogative forms in the preceding section the final $V$ or VC sequence occurs only if the pronoun is the head of the subject phrase，and then it is optional．With the promouns presented here，ho：ever，a final vowel in the


> ible' and 'past', Subject and Interrogative pronouns.
interrogative case is the interrogative case morph; thus interrogative designation is very marginal. (Functionally pitch indicates the contrast.) Chart presents the subject and interrogative case third person pronouns in $\{p\}$ and $\{k\}$.
'Non-past' encompases the present, future, and very.recent past. 'East' refers to the distant past or a recent past event not connected by the speaker with the time frame from within which he is speaking. Compare the followins:
//?asúh op la?én meh, in to tahíy?// 'What work have you done today?'
//?asúh ok la?'́n ná-?// 'What work did you (du.) do?'
The visibility component refers to whether or not the referent is in the view of the speaker at the time of speaking. जेompare the following:
//Turéh an 犭am hól cu.// liy Ariend (vis.) is first,
//Tuřéh aض hól cu.// 'Miy friend (not vis.) is first.'
$\{\Leftrightarrow\}$ 'remote' occurs only in the single form opi 'third singular remote, non past, not visible.' The meaning of this morpheme is unclear, but in at least some cases it indicates relative remoteness in contrast with $/ / a / /$ of $\{\varepsilon\}$ and $\{0\}$. E.g. //oacíh $\partial \underline{n}$ minś•?ño 0?// 'Wat is his neme?' (Of a person not present).
//フacíh as miné•?ñz meh\%// 'What is your name?' But ap also may refer to referents that are very remote.

ミ.g. //hón rólhaka ap, no i kúy ap kasón $\tilde{r} \varepsilon$.// 'But he is just lying on his box (on the moon)'.
\{hó-\} 'each other' is a form which is distributed with the possessive pronouns in their occurrence as objects of transitive verbs and after the directional locative \{? ${ }^{\text {ńn }}$.

玉.g.
//tá•phén hó• nun miné• lí•por̃e.// 'The books are flush to each other.' ([Flush with]-[reciprocal] each-other they these book.)
//táp yin, na 'ín hé•.// 'They are always together.' ([Flush with] they, they with each-other.)
820. The distribution of the personal pronouns from Table $I$ is as follows.

Subject pronouns occur as the subject of non-interrogative independent clauses.
//haĺ́yño hilá• man.// 'Hans out the cloth.'
(Cause-wave-out cloth you.)
//hacátnén $\partial k$ lí•porir cin.// 'I lost the book.'
(Cause-[be iost]-away-[involuntary action]
it-[not-visible; past] I.)
//nác in yíh, at mák kuyá•ya.// 'Now we do not see the seashore.' (Now we oh!, not see seashore.)

Interrogative pronouns occur as the subject of interrogative clauses, which may be used either (1) interrogatively or (2) exclamatorily.
(I) //ha’Én əc?// 'Am I late?' (Late-[involuntary] I.)
//sítih kanś•"yəváh tí•? əm, tá 0 ?//
'How did you catch it? (How ability-[perfective]-insistently do you, to it?)
(2) //irj• 习ə as vé tarik.// 'How many men there are:' (How-[great number] they these men.)

Suborainate proncuns occur as the subject of subordinate clauses.
//halé•n nup フinyútĩe man, nác hṍ• hã́• min, ay mítno.// 'Frepare your clothes so we can steal away.' (Make-ready the-visible clothes-your you, [and then] so we will, we hide-away.)
 'Immediateiy after bathing I walked around.' (Finish-after-body I bathe, and walk-[imperfective]-self.)
//kasála meh cin, om tisókno kúy níh mák.// 'I dare you to jump across this well.' (Dare you I, you jump-away over this water.)
Possessive pronouns occur as the object of a (1) verb or (2) preposition, as (3) the possessor of a noun, or as (4) the subject of a subordinate pronoun.
 'Prepare betel leaves and our tobacco also.' ([Make betel quid us, roll tobacco our also.)
(2) //kaláh cin min, yih "ín meh.// 'I will try to come to you.' (Try I will, come to you.)
/ Bacíh ap. min kumĩánjar̃ $\varepsilon$, to yí・の・// 'Which of you will go?' (Which it[visible, nor-past] will [one who goes]-away-self, of you?)
 friends of ours are so numerous.' (Oh: Great-quantity these friend our.) //káp an namóh, i kú・ク.hín, tətmák.// 'That is a tortoise in front of us, Totmak.' (Tortoise it that, at face our, Tatmak.)
 i miné sinróol meh.// 'Stretch your neck up as far as you can, so that $I$ can stand on your horns.' (Make-hard neck-your [obligational], so I stand-up-self, on these horn your.)

Emphatic pronouns occur as (I) the subject or noninterrogative independent clauses, as (2) an appositive subject, as (3) a predicate, and as (4) a demonstrative, following the noun it modifies. In its use as the clause subject, the emphatic pronoun, in contrast to the subject pronoun, indicates definiteness or certitude, and is thus usually used in narration of stories or past events.
 nuk to? ${ }^{2}$ aúr.?.// 'They went up by a cobweb because the creepers were broken down.' ([Go-via]-up by cobweb they,
because-[it is that] break-[imperfec-tive]-down they-[not visible, past] creeper.)
(2). //míkán cin, cú?ə.// 'I saw him myself.' (See-him I, myself.)
(3) //cú? cin, tô?amínu, təm lí•pər̃e.// 'I am the owner of the book.' (I I, whoowner, of-the book.)
(4) //halýñ̀ə亍் $\varepsilon$ an ik ható •m anúh?ə.// 'He writhed that night.' (Writhe-self he in-it-past night that.)

As has been mentioned, the third person 'not visible' and 'past' subject and interrogative pronouns are distinguished only when an interrogative form occurs as head of a subject phrase in an interrogative sentence, where the terminal V or VC is optional. Everywhere else the subject forms occur. Interrogative examples have been given. Examples of the subject pronouns, according to their function, are presented below.

Subject of independent clause
//ihih $\underline{\text { jk }}$ tahsㅋy.// 'He was just here? (Here he[past, not visible] just.)
//asúh ap min, kahé?to cu?// 'What shall I give?' (What it-[non-past] will, [what is given] my.)
$/ /$ hanó-rhótuə nuk, tá cu.// 'They have been driven in by me.' (Drive-in-[passive] they-[past], by me.)
/Pət ihíh g̣, có•n?// 'Isn't John here?' (ITot here he-[non-past], John.)

Demonstrative
/Pacíh ap lumkúp ap Elmó•ri.// 'Who is rattling the cupboarā?' (Who it-[non-past] rattler it[visible] cupboarà.')
//pinánkú・ク cin, to ró•kə ap iskú•I yí•’.// 'I'm surprised at how large your school is.' ([Be surprised] I, by [great size] it-[non-past, visible] school your.)
There are two examples of $\partial k$ as a relative pronoun; in both examples the relative clause is descriptive of the subject itself, e.g.
//cátnén ək nuã. cu, ək to sinĩó•luə.// 'My bull which has horns is lost.' ([Be-lost][involuntary] it-[past, not visible] bull my, it-[past, not visible] of horn-have.)
//cátnén jk ha’ún cu, ək to lamrítuə.// 'My pig which has a tail is lost.'
800. There are a number of uninflected words which, when occurring before pronouns, regularly contract with them. Tine nore aberrant forms are presented in Table IIT. There are in addition contractions with the following:
\{?ín\} 'in, to' plus a 3rd. sg. non-visible or past pronoun (\{?ín\} has the allocorph //i// in this environment);
\{to\} '(gramatical relator)' plus a.3rd. sg. non-
visible or past proncun or a subordinate pronoun;
$\left\{\right.$ to $\left._{1}\right\}$ '(imperative)' plus a lst person subordinate pronoun.

All of the above forms involve contiguity of the grammatical particle and the pronoun without intervening juncture with resultant morphophonemic sequences of schwa plus a vowel other than schwa, with either vowel preceding. In each instance the schwa is lost. A single exception is /topo/ (\{ta\} + \{o\}) in which loss of juncture follows glottal stop prothesis, a regular morphophonemic rule.

An additional pronominal contraction involves the contraction of $\{n ə+h e ́ n\}$ to $/ / n ə \eta / /$. \{no\} is the third person suboràinate pronoun substitute; \{hón\} is a verbal auxiliary, 'only'. The contraction involves the loss of the //há/l. of \{nán\}, which might better be described as having an allomorph //n// in this position were it not for the plethora of contractions in the language.

Table III presents the phonemic shapes of the relatively aberrant pronominal contractions, which involve consonant and/or length loss, length addition, alternart forms, or infixation. In general, the rule applies that of adjacent vowels of which one is a schwa, the schwa is dropped. Ilote, however, that this does rot pertain to $\{p, \cdot 0\}$. Of sters ending in $h$ the

| subordinate pronoun | $\begin{aligned} & \text { (yé }) \\ & \text { 'if' } \end{aligned}$ | $\begin{gathered} \text { (hór• }\} \\ \text { 'so that' } \end{gathered}$ | $\{\mathrm{p} 5 \cdot 9\}$ <br> 'because' | $\begin{aligned} & \text { \{ (१úh \} } \\ & \text { '(negative } \\ & \text { imperative)' } \end{aligned}$ | $\begin{aligned} & \quad \text { \{r̈ə̋h } \\ & \text { '(negative } \\ & \text { interrogative)' } \end{aligned}$ | $\begin{gathered} \text { \{pəcə\}} \\ (\text { (obligational)' } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1sg oc | yéc | hวิ.c | poc ~ pec | ?ưc | rió $\cdot \mathrm{c}$ | 'рессө |
| 2sg ${ }^{\text {gm }}$ | yé.m | $\mathrm{h} \boldsymbol{\sim} \cdot \mathrm{m}$ | pom ~ pem | ?úm | rib $\cdot \mathrm{m}$ | рәmсө |
| ldu ay | yé•ay | - | pópay |  | řá'y | раусə |
| 2du an | yé•an | - | - |  | rrá n | pance |
| lpl ay | yé•y | hõ•y | - | ?úy | rab $\cdot \mathrm{y}$ | рәусә |
| 2 pl - ${ }^{\text {g }}$ | yé•y | hō y | poy ~ poy | ?úy | rrá y | рәусө |
| $3 \mathrm{sc} \quad \mathrm{o}+\mathrm{n}$ |  |  | póon |  |  |  |
| $3 \mathrm{pl} \mathrm{ca}+\mathrm{n}$ |  |  | pó? ${ }^{\text {con }}$ |  |  |  |
| 3. n | yé n | hö•n | pon ~ pən | ?ún | ríg n | pencə |

```
Blank: combination does not occur -: not in data
```

Table III: Pronominal Contractions
$h$ is lost. Additional statements are as follows.
The $/ / \mathrm{n} / /$ of third person forms is an allomorph of \{nə\} 'subordinate third person', the statement being as follows:
no - n
n occurs as a bound form
e.g. //po.?can// 'because they...'
no occurs às a free form
e.g. //yé• o, nə// 'if he...'

Contractions with $\{y e ́ \cdot\}$ and $\left\{h^{\prime} \cdot \cdot\right\}$ involve simply
the loss of the initial $\partial$ of the pronoun, e.g.

$/ / y e ́ \cdot \partial y / / \rightarrow / y e ́ \cdot y /$ 'if we'
In all of the contractions with $\{$ yé $\}$ and $\{$ hō. $\}$. length is optionally (but usually) lost, with accompanying loss of stress, e.g.
/yé•m - yem/ 'if you...' /hラ̄•n ~ hõn/ 'that they...' In forms with adjacent short vowels, the second is stressed, i.e.
/yeáy/ 'if we two...' /yeán/ 'if you two...'
The single $\left\{p \sigma^{-7\}}\right.$ forms involve regular morphophonemic rules for adjacent segments, e.g.
//pó-?ay// $\rightarrow / \mathrm{p}$ ?ay/ 'because we two...'
The alternant \{pó• forms have the shape //po pa// Dlus the subordinate pronoun, with regular loss of schwa. Ëistorically the \{po. 1 \} contractions
 i.e., loss of $?$ and competition between the 0 of \{po.ク\} and the $\partial$ of the pronoun in the weak-stressed environment. However, the third person undifferentiated forms, which are clearly parallel, do not involve $\partial$ in the pronominal form and are not describable in the same terms. Thus the allomorphic statement as given is more appropriate.

Note that $\left\{p \rho^{\circ} 9\right\}$ has third person forms that are differentiated for number, along side the undifferentiated forms. The undifferentiated forms have either singular or plural reference.
\{pacə\} contractions involve regular schwa loss and are aberrant only in that they involve infixation of the subordinate pronoun.

The third person undifferentiated forms of \{ríh\} and \{rón\} both involve the loss of in before the following $n$, the \{róh\} form also having vowel length. The other \{ráh\} and \{?úh\} forms involve loss of the final h plus contraction according to the rule that of two adjacent vowels which include a schwa the schwa is lost. The \{r̂áh\} contractions also all have compensatory lengthening.
900. Verbs are identified by their distribution in verbal syntactic constructions and by their occurrence in the morphological constructions presented in this chapter.

Stems are described according to composition.and distribution. Compositionally defined stem classes are presented below; presentation of distributionally defined stem classes is deferred to the discussion of verb inflection.
910. Verb stem composition

Internal criteria define two types of stems: simple stems and derived stems.
911. Simple stems (S)

There are three types of simple stems: roots, compounds, and primsry stem derivatives.
911.1. Stems whicn are identical to root morphemes. Nearly all verb roots are of the shape cVC or cucic. However there are a few roots of the shapes CVV'C and CFCVV'C. Examples of monomorphemic verb roots are as follows:
\{síp $\}$ 'to grow'
\{ñ $\varepsilon \cdot \underline{k}$ \} 'to tie'
\{k土hz $\cdot \mathrm{t}\} \quad$ 'to accomplish'
\{lदh\} 'to club'
\{cip\} 'to be straight'
\{ríñ\} 'to germinate'

| \｛supeók\} | ＇to tiptoe＇ |
| :--- | :--- |
| \｛veśk\} | ＇to grunt＇ |

A very few bivalent roots occur as both noun and verb stems．All have tie shape CV́C．

E．g．

| $\{$ Iúl $\}$ | ＇smoke，to smoke＇ |
| :--- | :--- |
| $\{\tilde{r} \partial \cdot n\}$ | ＇foot，to go＇ |

Note the following pairs of stems．（Cited phonemically）

| non－agentive intransitive | agentive transitive | gloss |
| :---: | :---: | :---: |
| cavi－ | cuvi ${ }^{\text {－}}$ | ＇to rotate，circle |
| falál | filáz | ＇to break＇ |
| kayín | kiyín | ＇to shake＇ |
| lavés | luvés | ＇to be bruised； bruise ${ }^{〔}$ |
| $1 a^{\prime \prime}$ ón | 11フóh | ＇to break＇ |
| paréh | piréh | ＇to crumble＇ |
| patén | PItÉn | ＇to sting，smart＇ |
| sarák | sirák | ＇to slide＇ |
| talú－k | tilú• | ＇to overlap＇ |

These stems are representative of a large class of stems having paired non－agentive／agentive forms，the non－agentive forms having $/ a /$ as the first vowel，the agentive forms having／i／or，before a labial，／u／（re－ call triat $/ / i / / \rightarrow / u /$ before a labial）．Patterning with the above pairs in a few instances is the tonic syllable
occurring in isolation, suggesting segmentation of these forms into a CV́C root plus a paired set of $\mathrm{Ca} /$ non-agentive - Ci/agentive prefixes.
E.g. compare /つoh/ 'be broken' to /la’óh, li"óh/ 'to break' (non-agentive, agentive respectively).

While segmentation of many or all of these forms may well be correct from a inistorical viewpoint, synchronically it leaves one with a plethora of uniquely occurring morphemes. An additional complication is the fact that a few roots occur with several "prefixes", requiring that each prefix de assigned a different meaning. It has not been possible to ascertain consistent meanings for the various prefix pairs, neither where they contrast with other prefixes or with zero, nor when all of the CVCVic stems having the same initial consonant are examined for a: common semantic component.

The solution adopted here has been to sefment only those forms where the initial consonant contrasts either with another $C$ or $\varnothing \cdot$, this is described under "primary stem derivation". The remainder of the forms are considered to be monomorphenic transitive roots having the shape $C_{i} C V C^{\prime}$, the /a/ of the non-agentive. form being identified with the non-agentive $\{a\}$ of $/ / a r \dot{I}_{s} / /$ 'to $^{\prime}$ spill' (cf ris 'pour'. Vt.) etc. E.g.

$$
\begin{aligned}
& \{-a-\text { Ii`on }\} \rightarrow / / l i a^{9 o h} / / \rightarrow / \text { låóh } / \text { 'to break } \\
& \text { (non-agentive)' }
\end{aligned}
$$

\{-a- sirák\} $\rightarrow / /$ siarák $/ / \rightarrow /$ sarák/ 'tc slide (nonagentive)'

Zoots which have allomorphy.
A. Horphemes having allomorphs that are mutuelly exclusive.
ké? ē̄́ńn)
k $\varepsilon \cdot \cap$ occurs with $\{-a h-\}$ 'nominal', i.e. $/ k a h \varepsilon \cdot\urcorner / '$ what is taken' ké•’ occurs elsewhere, e.g. /ké?e/ 'be caught'
Farallel statements pertain to $\{v o \cdot \cdot k\}$ 'to bathe' and $\{$ ví y$\}$ 'to be feverish'.

```
    {vó-\underline{-x} : vó*k \infty 'ó`z 'to bathe'}
```

    \(\{\) ví \(\cdot \mathrm{y}\}\) : vú \(\cdot \mathrm{y} \infty\) गú \(\cdot \mathrm{y}\) 'to be feverish'
        "órk and \({ }^{\prime} \dot{u} \cdot \frac{y}{y}\) occur with \(\{-a n-\}\) 'instru-
        ment', i.e. /ªñ́̄•k/ 'bath water', /'anú•y/ 'fever'
    vó•k and vú•y occur elsewhere, e.g. /vamə́r-k/ 'batiner', /vó•r/ 'to bathe', $/ v i \cdot y /$ 'to be feverish'
 pahé•7 occurs before a vowel, e.g. /pinhe・フa/ ${ }^{\text {/ }}$ 'the frightening', /pahé" $\varepsilon k u ́ \cdot ク /$ 'be afraid'

$$
\begin{aligned}
& \text { ké"er̃ - before vowels,e.g. ké?er̃o }
\end{aligned}
$$

pá? $\varepsilon$ occurs eisewhere, e.g.
/tapá"ekú•?/ 'one who is afraid'
$\{\tilde{n} \grave{\partial} \cdot t\}$ : $\tilde{n} \check{\partial} \cdot t \infty$ yá•t 'to be decorated' yó•t occurs with $\{-2 n-\}$ 'gerund',
i.e. /yanã́-ta/ 'jewels' ñô•t occurs elsewhere, e.g. /hañ̈̃•t/
'to decorate', /’inñəə•tə/ 'the
decorating'
$\{1 \dot{I} k\}$ : $1 \dot{\underline{I} k} \infty 1 \dot{\xi} k$ 'to go through, by way of ' lôk occurs with \{ta\} 'nominal', i.e.
/talá•ka/ 'road'
1系k occurs elsewhere, e.g./Í -ka/'be gone by way of', /1系kña/ 'embarix at, leave from'
B. Allomorphs completely overlapping in distribution.

1. Vowel length alternation.
\{1ári\} : lán $\stackrel{f}{\sim}$ 1án ${ }^{\prime}$ 'to kill (Fython is agent)'
2. Vowel nasalization alternation.
\{tá•p\} : tá•p fí tá•p 'to be flush, even with' $\{p a \cdot p\}: p a ́ \cdot p ~ f(p a ́ \cdot p$ 'to deflate (tr.)'
3. Vowel quality alternation.
\{lafáy\} : lafáy f lafíy 'to have a flapshaped cut'
\{pirá•y\} : pirá•y ${ }_{\sim}^{f}$ pirúy 'to mix up, dissolve'
4. Consonant alternation.


\{talís $\}$ : talís $\stackrel{f}{\underline{1}}$ takís 'to glice, slip'
911.2. Compound stems

Compound stems consist of two roots. There are few such stems; the following tyees occur.
a. Stems in which the first element is a verb root and the second is a noun root.
 \{ró•? $\}$ 'voice, word' /sáprs’•?/ 'to answer' ; \{sáp\} 'to stab', $\left\{r o ०^{7}\right\}$ 'voice, word' /vi•’tít/ 'to mend' ; \{ví•?\} 'to make', \{tít\} 'end'
b. Stems in winich the first element is an adverbial particle and the second is a verb root. Only one such stem has been identified, i.e.
/hángáh/ 'to remain' ; \{hる̧\}'oniy, just', \{nain\} 'to remain, stay'
c. A stem in which the first element is a noun and the second is unidentifi $\in \mathbb{d}$, i.e.

911.3. Primary stem derivatives

Primary stem derivation is an innermost layer of derivation; it involves a root plus a derivational prefix of unique or limited occurrence. Such forms are all of a single phonological type: a CV prefix and a CV́C root. The following examples are illustrative.
a. Examples involving a verb root.
(ná•c\} 'be finished; already' /caná•c/ 'to clear up, disappear' ca- (?)
\{tá•n\} 'to press with palm of hand' /katá•n/
'to iron, press' ka- (?)
\{tíl\} 'to choose' /katíl/ 'to distribute' ka- (perhaps connected with \{kə\} '(distributive)')

Note the following sets.
\{íńn\} 'be rolled (as by waves on a beach)'
/pilín/ 'to roll (Vt)' pi- (?)
$/$ milín/ $/$ 'to round (Vt)' mi- (?)
/tilín/ 'be rolled cut, sround (Vt)' ti-(?)
\{ rínt $^{\prime}$ \} 'be tense, taut'
/kirít/ 'to twitch, pulsate (Vt)' ki-(?)
$/$ minírit/ 'to release something taut $(V t)$ '. mi- (?)
/tirińt/ 'to bounce (Vt)' ti- (?)
See -p:. 655 for a discussion of this problem.
b. Examples involving a noun root.
/kavjk/ 'to hook' ka- \{vjk\}'fish hook'
/kiřán/ 'to go afoot' ki- \{řə•n\} 'foot'
/harsh/ 'to sleep' ha- \{róh\} 'a night and a day'
c. Examples involving a directional.

Compare the followinf set of verbs to the correspondins directional verb suffix. /kuling/'to go to the left as you face the sea' $\{1\}$ 'up; to left facing sea' /kuní•?/ 'to go out to the $\varepsilon$ l panam; emerge from womb' \{ $\bar{n}\}$ 'out' /kuhét/ 'to enter; to go inland to the village from the head coastal village' \{inət\} 'in' /kuti•?/ 'to go to the right as you face the sea' $\{t\}$ 'to right facing sea; toward; down'

These forms are clearly segmentable, \{ku-\} being an intransitive verb deriving prefix, the stressed syllable consisting of the directional morphemes as indicated.
d. Example involving a numeral classifier. /fatáa/k/ 'to slap' fa- $\{$ tá•́x\} '(clf. with broad flat objects)'

## 912. Derived stems

Tho stems are to be described, each having distinct distributions: the causative stem (CS), consisting of a simple stem plus \{ha\}: 'causative', and the nonagentive stem (NA) consisting of a simple transitive stem plus $\left\{\alpha_{1}\right\}$ 'non-agentive'. These morphemes differ from those described under primary stem derivation in that they are clearly identifiable as morphemes and are evidenced in a large number of examples.

Complementary classes of stems occur with \{ha\} and \{a\} in the data; this is not surprising due to the limited distribution of $\left\{a_{1}\right\}$ and the fact that it occurs exclusively with trensitive stems, while \{ha\} occurs primarily with intransitive roots. (Transitive and intransitive stems are defined in section 930 .) This complementation is probably a trivial fact. 911.1 Causative stem: \{ha.\} + S

The causative stem consists of a simple stem plus
\{ha\}. 'causative.'. \{ha\} has allomorphs as follows:

```
(-m- - mi-\infty ma-) - (? m ha-)
```

-ma - mi- $\infty$ mé- occur with CVCVC stems
mi- $\infty$ mó- occur with stems beginning with a
larfngeal; it is necessary to list the stems with
which they occur. The following lists are thought to be complete for the corpus.

Stems occurring with miharivión 'be sorrowful' hurin 'be black' 'akáh 'to know'
'aŋú•? 'be bitter'
'uréh 'be startled'
SR: $\mathrm{HV} \rightarrow \varnothing / \mathrm{mi}$
E.g.
mi + hurinn- $\rightarrow$ //mirin-// 'make black'
mi + ’anú•" $\rightarrow / /$ inú・ク// 'make bitter'
Stems occurring with ma-

| 'isóh | 'be white' |
| :--- | :--- |
| ’ufóv | 'be cold' |
| ’ulóhtén | 'bnow intimately' |
| E.g. |  |


//mə'ufóv// $\rightarrow$ /mu’ufóv/ 'to make cold'
-m- occurs with other CVCVC stems, e.g.
/sumroónkú•’/ 'shame', //sir̄ónkú•?// 'be ashamed' ? $-\infty$ ha- occur elsewhere ?- occurs with \{an\} 'instrument' and \{in\} 'gerund', e.g.
/'inkİy/ 'a float' (/hak'íy// 'to float')
/Pincápə/ 'piling' (//hacáp// 'to pile')
ha- occurs elsewhere, e.g.
/harác/ 'to heat', \{rá-c\} 'be not'.
\{ha\} occurs :rith a very large number of stems, most of which are from the intransitive subclass of verbs and have the shape CVC; however it does occur with some noun and transitive verb stems and with a few stems of the shape CVCVC. With transitive verb stems \{ha\} has double causatire force, i.e. it means to 'cause something to be done ${ }^{\text {r }}$. The following list of stems which occur with \{ha\} is exemplary but by no means complete.

Stems which occur wịth \{ha\} (Cited morphemically)

## 1. Transitive stems

fál 'run' . ná•? 'eat'

| kilón | ＇to cage＇．rát | ＇slice crosswise＇ |  |
| :--- | :--- | :--- | :--- |
| ló•t | ＇bend a wire＇tá•y | ＇catch＇ |  |
| mák | ＇see＇ |  |  |

2．Intransitive stems

| cip | ＇be straight | ró 1 | ＇be lying down＇ |
| :---: | :---: | :---: | :---: |
| hók | ＇be cookea＇ | rón | ＇accompany＇ |
| kirón | ＇be big＇ | 「ı土 | ＇roll＇ |
| lé•n | ＇be thin＇ | $\tilde{r}^{\prime} \pm{ }^{\text {¢ }}$ | ＇tighten＇ |
| 1壬y | ＇shake＇ | sáh | ＇be black＇ |
| rác | ＇be hot＇ | siriónkú•？ | ＇be ashamed＇ |
| rák | ＇be level＇ | síp | ＇grow＇ |
| réy | ＇be weary＇ | tåñ | ＇be angry＇ |

3．Noun stems

| kupáh＇corpse＇（caus．：＇to make dead＇） |  |  |
| :--- | :--- | :--- |
| múm | ＇dirt＇ | （caus．：＇to make dirty＇） |
| yá•c＇poor＇ | （caus．：＇to humble＇） |  |

Examples：
／／hanÉk／／＇to show＇
／／kimlón／／$\rightarrow$／kumlón／＇to cause to be caged＇
／／hasáh／／$\rightarrow$／＇asáh／＇to blacken＇
／／hacíp／／＇to straighten＇
／／hayá•c／／．＇to humble＇
／／hañá・ク／／＇to feed＇
／／kimr̃ón／／$\rightarrow / k u m \tilde{y}$ ng／＇to make big＇
911.2 Non－agentive stem：$\left\{a_{1}\right\}+S$

The non－agentive stem consists of a simple stem plus $\left\{a_{1}\right\}$＇non－agentive＇．
$\left\{a_{1}\right\}$ occurs with a subclass of transitive stems, most of which have the shape CiCVC; however it does occur also with a few stems having the shape CVC. The following is a partial list of stems which may occur with $\left\{a_{1}\right\}$ (Cited morphemically):

| fók | 'split' | pilín | 'roll' |
| :---: | :---: | :---: | :---: |
| kirúp | 'smash' | pirá•y | 'dissolve' |
| kité-1 | 'swing' | réh | 'unstraddle' |
| li.c | 'peel off' | rís | 'pour' |
| lik秋 | 'break' | síc | 'rub vigorcusly' |
| li`ôh | 'break' | tihús | 'perfume, scent' |

Examples:

| //1a?óh// | 'be broken' |
| :---: | :---: |
| //afok// $\rightarrow$ / ${ }^{\text {afofk/ }}$ | 'be split' |
| //ali $\cdot \mathrm{c} / / \rightarrow /$ /ali $\cdot \mathrm{c} /$ | 'be peeled' |
| //karúp// | 'be smashed' |

920. The Deictic verb
\{hu\} and \{han\} are two infrequently occurring verbal prefixes which emphasize the nature of the action of the verb. The data allow only brief mention of these prefixes, which are distributed with all three stem classes.

$$
\text { Deictic verb: } \left.\begin{array}{l}
\{\mathrm{han}\} \\
\{\mathrm{hu}\}
\end{array}\right]+S_{1,2,3}
$$

E.g.
//hutufít// 'by slinging' //hantanfíta// 'by slinging'
//husiřó•lə// 'by butting' //hansiñóóla// 'by butting'
//huríll/ 'by crawling' //hanfóh// 'by kicking' CVCV́C stems with \{han\} always have an //n// infix; this seems to be a euphonic segment of a recuplicative nature; it is not thought to be of grammatical significance. Some of the stems are extended by a schwa suffix, which remains unanalyzed. This may be the same problem as the schwa augment mentioned in the noun section. The available texts have insufficient examples to pursue the problem of schwa. No other suffixes may occur with Deictic verbs.

There are apparently limitations on the distribution of these prefixes; separate listings, which cannot be made from the available data, are required for all verbs.
E.g.
//hukafítə ap.// 'He did it by flicking.' (Byflicking he.)
//hankanlí•ć ək, no ké•?ə ع.// 'By putting his arm through he took it.' (By-[putting arm through] he, he take it.)
//hansó•n an, nə sút nam ñám.//'By kicking he played the ball.' (By-kicking he, he play the ball.)
//hulíráa•ka cin.// 'I did it by splitting it.' (Bysplitting I.)

With respect to the inflectional derivational dichotomy, the Deictic verb seems to be intermediate. Stem derivation is nearly all prefixual in Nicobarese, while inflection is suffixual. The Deictic verb shares some properties of both types; it seems best to simply not try to categorize it in these terms.
930. Introduction to Verb Inflection

Verbs occur as stems in thirteen major inflectional constructions, each of which consists of a stem and one to three suffixes. Five of the constructions consist of a stem plus a single suffix, indicating deleterious effect, continuation of action, action sequence, negative absolute, and attribution, i.e., that the verb bears an attributive relationship to a following noun. The other seven constructions describe paradigms which are inflected for direction/aspect and which differ with respect to voice: reflexive, passive, possessive, stative, two intransitive and two active paradigms complete the set. The two intransitive paradigms consist of one of transitive stems, which have an incorporated object, and one of intransitive stems. The two active paradigms are not marked for active; they indicate respectively personal and non-personal referent of the verb, the referent being a airect object with transitive verbs; an indirect object with intransitive verbs:

There are two small classes of suffixes which may attach to fully inflected verbs. They are termed postinflectional suffixes. One class consists of a single morpheme which requires the statement of special constructions; the other is a class of nouns whose structural relationship to the verbs is fully described by the resular tactic constructions.

Finally, the verb presentation closes with a discussion of a resicual set of suffixes of infrequent or highly restricted distribution.

The constructional paradigms (Table IV) define three classes of stems: $S_{1}, S_{2}$, and $S_{3}$. Class 1 stems comprise derived causative stems and a class of simple transitive stems; as a whole this class is referred to as $V_{t}$ or $S_{1}$. Class 2 stems comprise derived non-agentive stems. The class is referred to as $\mathrm{V}_{\text {na }}$ or $\mathrm{S}_{2}$. Class 3 stens are all simple intransitive stems referred to as $V_{i}$ or $S_{3}$. $A$ very few stems belong to more than one class.

Stems vary as to degree of freedom with respect to the suffixes; some stems occur freely in all constructions permissible to their stem class; at the other end of the scale some stems always occur with a single suffix configuration. In between these extremes are stems with varying combinatory possibilities - stems "frozen" at various points in the derivational process or having limited substitutional possibilities. In the last analysis, separate statements must be made for nearly every stem.

In the course of limited field work it was not possible to investigate individual stem suffixation as fully as one would like or as fully as is required for definitive analysis of the verb system. The description presented here is necessarily broad and subject to refinement.

Several of the constructions are diagnostic for stem class; in the absence of complete paradigms for

| Constructions | Stem l'ypes |  |  |
| :---: | :---: | :---: | :---: |
|  | Class 1 | Class 2 | Class 3 |
|  | Pransitive | Non-agentive | Intransitive |
|  | stems | stems | stems |
| Personal referent | X |  | (X) |
| Non-personal referent | X |  | (X) |
| Passive | X | X |  |
| Keflexive passive | X | X | X |
| Possessive | X |  |  |
| Intransitive locative |  |  | X |
| Incorporated object | X |  |  |
| Stative | (X) | X | X |
| Continuative | X | X | X |
| Attributive | (X) | X | X |
| Sequential | X | X | X |
| Note: (X) indicates that the occurrence of the stem type is very limited in the |  |  |  |
| Table. IV: Verb Infle | On: Distr | of the stems i | e constructio |

$a l l$ stems, occurrence in any one of the constructions specific to a particular stem type is taken as evidence for classification of the stem. An additional criterion for stem classification was alluded to in connection with noun derivation, namely distribution and allomorphy of the gerund, $\{-i n-\}$. Non-agentive stems do not occur with the gerund, while intransitive and transitive stems take different allomorphs. A further stem classing criterion is the adjective prefix, which occurs only with intransitive stems.
931. Thematic stem (TS)

The thematic stem (TS) consists of a stem plus one of the thematic suffixes. The thematic suffixes are a set of seven suffixes expressing direction or aspect, i.e. $\{h\},\{h=t\},\{k\},\{I\},\{\tilde{n}\},\{n\},\{t\}$.

Stems of classes 2 and 3 do not occur with $\{k\}$.
Thus the statement of the thematic stem is as follows:

$$
\begin{aligned}
& \mathrm{TS}_{1} \rightarrow \mathrm{~S}_{1}+\text { thematic suffix } \\
& \mathrm{TS}_{2} \rightarrow \mathrm{~S}_{2}+\text { thematic suffix } \\
& \mathrm{TS}_{3} \rightarrow \mathrm{~S}_{3}+\text { thematic suffix }
\end{aligned}
$$

Examples:
$\mathrm{TS}_{1}$ : //lénk-// 'hit purposelessly'//haŕáli-// 'roll up' $T S_{2}: / /$ parú•yl-// 'become muriky' //larákñ-// 'be split' $\mathrm{TS}_{3}: / /$ sí•pt-// 'grow down' //li'•nh-// 'be angry'

Details of the thematic suffixes are as follows: \{k\}, 'imperfective'
\{k\} indicates that the action is only partially accomplished, is only half-heartedly or not seriously done, is only touched upon, or is done unintentionally. It occurs only with $S_{1}$.
E.g.

$$
\begin{aligned}
& \text { //lírka// } \rightarrow \text { /lí•ka/ 'to cut a little' } \\
& \text { //kité•Ika// 'to be swung back and forth (for } \\
& \text { no reason)' } \\
& \text { //fínkərere cin.// 'I burn myself accidentally.' }
\end{aligned}
$$

\{h\} 'reciprocal action'
The meaning of $\{h\}$ is quite obscure. It is usually the thematic suffix employed when the object of a verb is \{hé•\} 'each other'. In most transitive uses and in the Reflexive passive verb it appears to mean 'a plural subject acts with respect to each other', e.g.
//li•nhén hé• an, ay cón.// 'John and I are angry with each other.'
//kař́tphén hé• nun miné •í•pər̃ع.// 'i'hese books are pressed together. (lit. press each other together.)'
 singing a song gathered together.'
$\{h\}$ with the passive $\left\{\partial_{5}\right\}$ occurs with a number of verbs; its meaning is not clear, e.g. //hánhurén cin, tá $0 . / /$ 'I'm loved by him.' (há•nén 'to love')
//c壬khukú•’ an nam sakú•/// 'The knife pains.' (cík 'to hurt' ( $V_{i}$ ) )
//harÉyhu ən nam máy.// 'The sea is saline.'
In the latter two examples the verb indicates that the subject is emitting the quality which is expressed by the verb - as opposed to being affected by it. This may be ascribable to $\{\mathrm{h}\}$; it is not clear. \{hət\} 'inward, toward the interior of the island' hé-t $\infty$ hót ~hət
hé-t occurs with \{ku\} '(intransitive verb deriving prefix)' i.e.
//kuhé•t// 'to enter, go into'
hót ~ hat occur elsewhere
hát occurs non-finally
hat occurs elsewhere
= E.g.
//sí•phétric/// 'to be growing into'
$/ / h a h o ́ \cdot r h a ́ t v o / / \rightarrow / h a ` o ́ h ə t v a / ~ ' t o ~ b e ~ d r i v e n ~ i n ' ~$
//silóthət// 'to prepare a food parcel and take it inland'
$/ /$ ªsérhst// $\rightarrow /$ ªs $\varepsilon$ •hat/ 'to pour into'
Two observations of interest pertain to the differing phonological shape of $\{$ hat $\}$ as compared with the other thematic suffixes. The first is that, unlike the other thematic suffixes, \{het\} has a stressed allomorph which occurs as a verbal suffix. The usual pattern in the
language is for CVC syllables to have stress if they follow a stressed root; the //hát// allomorph is doubtless a reflection of that pattern. The second observation is that $\{$ hot $\}$ occurs with $\varnothing$ allomorphs of $\left\{\theta_{3}\right\}$ 'personal referent', $\left\{\partial_{4}\right\}$ 'non-personal referent', $\{i\}$ 'intransitive stem closing suffix' and $\left\{\hat{\sigma}_{6}\right\}$ 'reflexive stem extending suffix', suffixes which immediately follow the thematic suffixes in four of the verb constructions. These $\varnothing$ allomorphs are doubtless related to the relatively longer phonological shape of \{hat\} as compared with the other thematic suffixes.
$\{1, t, \tilde{n}, n\}$ form a distributional subclass of the thematic suffixes; they will be called 'directional suffixes' (D).
\{I\} 'upward; to the left when facing the sea; to increase in size or number (with $\tilde{r} \varepsilon$ )' $1 \infty$ 1壬

Ín occurs with \{ku-\} '(intransitive verb deriving prefix)', i.e. .
//kulín// 'go to the left as you face the sea.'
I occurs elsewhere, e.g.
//sí•pla// 'grow up'
//lir̃áklə// 'split something' (involves upward motion)
//míñlər̄e// 'be growing up; be growing in size or number'
//hata'mlə// 'go to the left facing sea at night'
\{t\} 'toward; downward; to the right as one faces the sea'
t $\infty$ tí $\cdot ? \infty$ ta ta occurs with quantifier stems after \{qa\} 'incorporated object', e.g.
//lú•yqəta// 'do three (things) toward, down' //harőhtúmqəta// 'do some (things) toward, down' tí? occurs with \{ku-\} 'intransitive veri deriving prefix', i.e.
//kuti•?// 'go to the right facing sea'
t occurs elsewhere, e.g.

//hakipten// 'teach (someone)'
//sモ́lti// 'come down'
\{ñ 'outward; toward the seashore'
ñ $\infty$ ñí.?.
ñí・ク occurs with \{ku-\} '(intransitive verb deriving prefix)', i.e.
$/ / k u n ̃ i ́ \cdot ? / /$ 'to go out to the $\varepsilon$ l panam (head village at the seashore)'
ñ occurs elsewhere, e.g.
//míññař $\varepsilon / /$ 'to be growing out'
//kihńtinén// 'to put (someone) out'
//paréhkiñi// 'to be accidentally broken out' (non-agentive)

> //sirióiña// 'to butt (something) out' //cípñi cin, kuñí•.// 'I'm going straight. to the seasnore.'
\{n\} 'perfective'
\{ g$\}$ indicates one of the following:

1. action is completed
2. the goal of the action of the verb is done away with - perhaps left behinà, destroyed, or removed.
3. the action of the verb is directed inland to the jungle.
E.g.

/lařa-riyy on yam pakcón./ 'The branch has accidentally split away'.
/çípno cin, carú•y./ 'I'm going straight to the jungle.' ク $\infty$ ga $\infty$ iə ~ i ~ əi
ie - i ~ $\operatorname{\partial i}$ occur with $\left\{\hat{a}_{5}\right\}$ 'passive'
io occurs after a laryngeal when $\left\{\theta_{5}\right\}$ is nonfinal, e.g.
$/ /$ hacú?iərén// $\rightarrow$ /hacú?uyrén/ 'be cheated' //'amáni̇ərén// $\rightarrow$ /'amáhazrrén/ 'do accicientally' əi ~ i occurs after a laryngeal. when $\left\{\theta_{5}\right\}$ is final, e.g.
$/ /$ fóhoi=// $\rightarrow$ /fóhoya $\underset{\sim}{f}$ fóhoy/ ' be beaten' $/ / £$ óhia// $\rightarrow$ /fóhiyz/ 'be beaten'

i occurs elsewhere, e.g.
//halínirén// $\rightarrow$ /halínírén/ 'be deposited'
//kumtú•yiř́n// 'be deceived'


na occurs worã finally with \{qa\} 'incorporated object', egg.
$/ /$ ú•yqana// $\rightarrow$ /lú•yhana/ 'do three (things) up'
 one)'

万 occurs elsewhere, eng.

932. The Personal referent verb consists of a stem of class 1 , with or without a thematic suffix, pius $\left\{\theta_{3}\right\}$ 'personal referent'. A few class 3 stems with the thematic suffix \{h\} ~ ' r e c i p r o c a l ~ a c t i o n ' ~ h a v e ~ a l s o ~ b e e n ~ found with $\left\{\theta_{3}\right\}$.

Personal referent: $\left.\begin{array}{c}T S_{2} \\ S_{1}\end{array}\right]+\left\{\hat{o}_{3}\right\}$

$$
s_{3}+\{h\}+\left\{a_{3}\right\}
$$

$\left\{a_{3}\right\}$ 'personal referent' occurs only in this single construction; it has the following allonorphy: ə $\infty$ En $\infty \varnothing$
$\not{\otimes}$ occurs with \{hat\} ~ ' i n w a r d , ~ t o ~ t h e ~ i n t e r i o r ' , ~ e g g . ~ //h $\ddagger$ khat// 'wait for (someone) to enter' //náthét// 'tie (someone) inside' .
en occurs elsewhere with thematic stems, eeg.
//tá•nŋ́́n// 'to push (someone)'
//léhlén// 'to hit (someone) up'
a occurs elsewhere, e.g.
//léhə// $\rightarrow$ /léhe/ 'hit (something)'
//ñe•laza// 'tie (something)'
A special phonological rule pertains to personal referent non-thematic stems followed by \{0\} ~ ' a r d ~ p e r s o n ~ pronoun', ie.

SR: $\left\{a_{3}\right\}+\{0\} \rightarrow / /-a ́ n / /$
that is, the //o// of the personal referent ending plus the //o// of the ard person pronoun result in the portmanteau verb suffix an, egg.
\{félə + 0$\} \rightarrow / / i ̂ \varepsilon$ lán// 'kill him'
The Personal referent indicates that the verb has an object and that it is personal, ie., a personal name, a personal pronoun, or $\{$ hér $\}$ 'each other.' The object of stems of class 1 is direct; with class 3 stems it is indirect.

Examples:
with $S_{1}$
//ñe•ktén 0 cin, ’ín cón.// 'I tie him to John.' (Tie him I, to John.)
//ti•nnén tətmák an, cé•ms.// 'James sent Tatmak away.' (Sent-away Tətmak he James.)
//fé•la có•n man:// 'Kill John:' (Kill John you:)
//mákə ca cin.// 'I see them.' (Siee them I.)
with $S_{3}$
//ẏ́hhén ih an.// 'He came to us.' (Came us he.)
//línhén hó• an, ay có•n.// 'John and I are angry with each other.' (Angry each other we, I-and John.)

There are some instances of the Personal referent verb occurring with the non-personal pronouns\{ $\{$ \} 'it' and \{u\} 'them', and with \{hé•\} 'each other' when its reference is non-personal. In several examples the Fersonal referent verb clearly may be replaced by a Nonpersonal referent verb. It appears that this is an area in which the language is changing - from the occurrence of the Personal referent verb exclusively with personal pronouns, names, and \{há•\} 'each other' when its reference is personal to its additional occurrance with any pronoun and \{hə́•\}, regardless of reference. 93う. The Non-personal referent verb consists of a thematic stem of class 1 , plus $\left\{\sigma_{4}\right\}$ 'Non-personal referent'. As with the Personal referent verb a few class

3 stems with the thematic suffix $\{\mathrm{h}\}$ 'reciprocal action' have been found with $\left\{\hat{a}_{4}\right\}$.

Non-personal referent: $\mathbb{T S}_{1}+\left\{\hat{o}_{4}\right\}$

$$
s_{3}+\{h\}+\left\{a_{4}\right\}
$$

$\left\{\theta_{4}\right\}$ 'non-personai referent, occurs only in this construction. It has the following allomorphy: a $\infty \varnothing$
$\varnothing$ occurs with \{hət\} 'inward, to the interior', e.g. //li`óhhat// 'break (something) in' //cá•thət// 'move (something) in'

ว occurs elsewhere, e.g.
//hóknə// 'to bail (something) out (away)'
//pirćhkə// 'to crumble (something, incompletely)'
The Non-personal referent verb indicates that the action of the verb relates to an object that is nonpersonal; the object may or may not be expressed. With stems of class 1 the object is direct; with class 3 stems it is indirect. Class 3 stems are very infrequent in this construction.

Non-thematic stems are unsuffixed with non-personal objects; thus an unsuffixed stem serves as a non-personal referent verb in the tactic statements.

Examples:
with $S_{I}$
//fálhət lí•poře cin, $\varepsilon$ l patí•".// 'I ran the book into the house.' (Run-in book I, in house.)
//hakíppa $\varepsilon$ man, $\varepsilon$ lló•nre. $/ /$ 'Learn it by heart.' (Learn it you, in-mind-your.)
//fóhñə misó*kə cin.// 'I hit the mosquito out.!
(Hit-out mosquito I.)
//śe•t cin.// 'I stab.' (Stab I.)
c.f. //fók mák cin.// 'I bale water.' (Bale water I.) with $S_{3}$
//ránhə patí•? cu ən nam có•n.// 'The tree is near my house.' (Near house-my it the tree.)
934. Two constructional statements are required to present the Fassive: one for stems of class 1 and a second for class 2 stems.

The Passive of class I stems consists of a stem, with or without a thematic suffix, plus the passive morpheme $\left\{\mathrm{O}_{5}\right\}$.
$=$ Fassive $\left.\left(S_{1}\right): \begin{array}{r}T S_{1} \\ S_{1}\end{array}\right]+\left\{\partial_{5}\right\}$
The Passive of class 2 stems consists of a stem plus a directional suffix or $\{$ hət $\}$ 'inward' plus $\left\{\theta_{5}\right\}$ ' passive'. When the directional suffix is $\{t\}$ 'toward', 'down' or \{ $\bar{n}\}$ 'out' the stem is extended by the suifix \{kə\}.

$$
\text { Passive }\left(s_{2}\right): s_{2}+\left[\begin{array}{c}
\{\mathrm{k}\}+\left\{\begin{array}{l}
\{t\} \\
\{\tilde{n}\}
\end{array}\right] \\
{\left[\begin{array}{c}
\{\eta\} \\
\{1\} \\
\{\text { hət }\}
\end{array}\right]}
\end{array}\right]+\left\{\partial_{5}\right\}
$$

\{kə\} 'intransitive stem extending suffix', occurs only in this construction, e.g.
//latóiketi// 'be broken down'
//sarólkeñi// 'be butted away'
$\left\{\partial_{5}\right\}$ 'passive', occurs only in the Passive verb and has allomorphy as follows:

```
\partial\infty a \infty\emptyset\infty ә\etaә \infty vә \inftyu ~ u(ə)
    \emptyset \stackrel { f } { \sim } \partial ~ o c c u r s ~ f i n a l l y ~ w i t h ~ \{ \eta \} ~ ' p e r f e c t i v e ' , ~ e . g .
```



```
        //fúniv f f fú\etai// -> /fú`\etaiya f fúr.\etai/ 'be split'
        \varnothingocurs non-finally with {`} 'perfective', e.g.
        //palá·`isrén// -> /palá`ayrén/ 'be injured'
        //hacátirén// -> /hacá`tirén/ 'be lost'
        a occurs with {k} 'imperfective', e.g.
        //nay{lua// 'be partially swollen'
        //só•nixa// 'be partially bent'
        әgә occurs with {I} 'upward', e.g.
        //f£́glona// 'be burned'
        //ha`ãhlena// 'be served'
        vo occurs with {hət} 'inward', e.g.
        //la?óhhótvo// 'be broken into something'
        //paréhhétva// 'be crumbled into something'
        u ~ u(a) occur with {t} 'toward, downward', and
        {\tilde{n}} 'outward'
        u(a) occurs word finally, e.g.
        //hanó·rñua// -> /ha`ó·ñuva/ 'be expelled'
        //hahó·rñu// ->/ha?o``nu/ 'be expelled'
        u occurs elsewhere, e.g.
        //hakíhturén// 'be punished'
```

//I主nnukú•?// 'be open'
a occurs elsewhere, e.g.
//léhə// $\rightarrow /$ ह́nhe/ 'be hit'
//ñं $\mathrm{k} \partial / / \quad$ 'be tied'
//hatíno// $\rightarrow$ /hat

With stems of class $l$ the Passive verb indicates that the grammatical subject is the object of the action of the verb.
E.g.
//míkka ən níh lí•perie, to cé•n.// 'This book is looked after by Jane.' (Iook-imperfective-passive it this book, by Jane.)
//ha’ấhlanə cá?a, to yik hólĩq.// 'They were served by their friends.' (Feed-passive they, by those friend-theirs.)
//tí•niyó yik marín̄əə, nə ñók có•n, ək panó•?ə ca.// 'The (pI) elders were sent, to pull weeds of the garden.' (Send-perfective-passive those elders, they pull weeds, it-was garden their.)
//ñéko cin, ta nané•k.// 'I'm bound by the cord.' (Bind-passive I, by cord.)

With class 2 stems the Fassive verb indicates that the condition stated by the verb pertains to the subject and has been caused.
E.g.

```
//cavílana \(\varepsilon\) l kúy cin.// 'I'm giddy.' (Circle-up
    in head I.)
```

／／1arákhèti an nam pakcó•n，to kú・ク kufít．／／＇The branch is broken down，by the action of the wind．＇ （Broken－passive－down it the branch，by face wind．）
／／lařukkəəni nun miné•kú•pú－I．／／＇These flowers are blossoming forth．＇（Blossom－cut they these flower．）
／／la’óhhótvə ək kú• ${ }^{2}$ cók，nə i ’aláha ha’ún．／／＇The arrow point was broken in the pig＇s body．＇ （Broken－in it－was point－arrow，it in body pig．）

There is one example of a class 2 stem without a thematic suffix occurring with $\left\{\partial_{5}\right\}$ ．
／／lakúka tí•’ cin，ta pilÍn．／／＇I broke a bottle．＇
（Break hand I，of bottle．）
There is one example of a stem from class 3 occurring as a stem in the $S_{2}$ Passive verb construction，i．e． ／／ró•lkati ró・つ cin，vé•’クəənán．／／＇I frequently gossip．＇（Many－toward word I，gossip．）

935．The Reflexive－passive verb consists of a thematic stem of any class or of a non－thematic stem of class 1 ， extended by $\left\{\sigma_{6}\right\}$＇reflexive stem extending suffix＇， plus \｛ře\} 'reflexive'.

Reflexive passive： $\left.\begin{array}{r}T S_{1}, 2,3 \\ S_{\bar{I}}\end{array}\right]+\left\{\partial_{6}\right\}+\{\tilde{r} \varepsilon\}$
$\left\{a_{6}\right\}$＇reflexive stem extending suffix＇occurs only in this construction．

E．g．

$$
\begin{aligned}
& T S_{1}: / / \text { fálnə }_{1} \varepsilon / / \text { 'to run away' } \\
& \text { //samétlər̃e// 'be one who stabs oneself up' } \\
& T S_{2}: / / p a r u ́ \cdot y l a \tilde{r} \varepsilon / / \text { 'become murky' } \\
& \text { //tafIthótir } \varepsilon / / ~ ' t o ~ s p r i n g ~ i n ' ~ \\
& \mathrm{TS}_{3} \text { : //míñ̄̄̄̄̃と// 'be growing out' } \\
& \text { //cípləテ̄ع// 'to straighten up' } \\
& S_{I} \text { : //hamú•loř } \varepsilon / / \text { 'to gather (selves) together' } \\
& \text { //Iéhəテ̄ع// 'to hit oneself' }
\end{aligned}
$$

The reflexive $\{\tilde{r} \varepsilon\}$ also occurs with nouns and is described unaer common noun suffixation．

The Keflexive－passive verb simply indicates that an action occurs；the agent and the goal are both incidental． where indication of the agent is given the implication is that it is essentially irrelevant and probably is accidentally involved．Where the Reflexive passive verb occurs simply in a Verb＋Subject clause witi no speci－ fication as to agent or goal，the sense of the construc－ tion is reflexive，e．g．
／／kaf́́tə $\mathfrak{r} \varepsilon$ cin．／／＇I brush myselî off̂．＇
（Brush－self I．）
／／mú－Ihō̃e yin，nó ná－7．／／＇They eat to－ gether．＇（Together－each other－self they eat．）
／／hafíẏere cin，$\varepsilon$ l kufit．／／＇I＇m shaking in the wind．＇（Cause－shahe－self $I$ ，in winc．）

If an agent is specified it is in a phrase which is satellite to the clause nucleus; the clause subject is the goal of the action, e.
//cítióre an nam kasón, to tí? cu.// 'The box is lifted up by me.' (Iift-up-self it the box, by hand my.)
//lařákləře an nam pakcó•n, to kú・つ kuf́̇t.//
'The branch is broken by the wind.' (Break-up-self it the branch, by face wind.)

The Reflexive passive of $S_{2}+S_{3}$ verbs indicates increment of action unless an agent is expressed, e.g.

$$
\begin{aligned}
& \text { //cí•’tar̃e cú•k ən nam rọ́n có•n.// 'The fruit } \\
& \text { is lowering its place.' (Short-down-self } \\
& \text { place it the fruit.) } \\
& \text { //parú•yloré an nam máy.// 'The sea-is getting } \\
& \text { murky.! (Cloud-up-self it the sea.) }
\end{aligned}
$$

The suffix configurations torie and ler̃e are also found with numerators, where they are incremental in meaning; they are described under numerator inflection.
936. The Intransitive locative verb consists of a stem of class 3 suffixed with a directional (D) or \{hot\} 'inward', and with \{i\} 'intransitive stem closing suffix'.

Intransitive locative: $S_{3}+\left[-\left[\begin{array}{l}\{h a t\} \\ D\end{array}\right]+\{i\}\right.$
\{i\} 'intransitive stem closing suffix' occurs both in this construction and in the incorporaied object verb. It has the following allomorphs:
\{i\} 'intransitive stem closing suffix'
i $\partial \varnothing$
$\varnothing$ occurs with $\{\eta\}$ 'perfective' when it follows \{qə\} 'incorporated goal', and with \{hat\} 'inward, to the interior', e.g.

$$
\begin{aligned}
& / / f \varepsilon \cdot \varepsilon \text { lagana } / / \rightarrow / f^{\prime} \varepsilon \cdot l h a \eta a / / ~ t o ~ h a v e ~ k i l l e d ~ \\
& \text { (someone)' }
\end{aligned}
$$

//hémint// 'flow in'
//tíninzt// 'to reach in (i.e. arrive inland)'
i $\underset{\sim}{f}$ ə occurs non-finally with $\{t\}$ 'toward, down'
e.g.
//s壬ltikú・の í síltokú•?// 'to arrive at a place'

i occurs elsewhere with $\{t\}$ 'toward, down', and with \{ñ 'out', e.g.

$$
\begin{array}{ll}
\text { //tóhti// } & \text { 'float toward' } \\
\text { //sílti// } & \text { 'arrive (down to)' }
\end{array}
$$

$$
\begin{aligned}
& \text { //sí•pñi// 'grow out' } \\
& \text { //nátqəñi// } \rightarrow \text { /náthəñi/ 'to tie something out' } \\
& \text { a occurs elsewhere, e.g. } \\
& \text { //lókqəla// } \rightarrow \text { /lókhələ/ 'to stab (someone) up' } \\
& \text { //míñlə// 'to sprout up' } \\
& \text { //cípno// 'to go straight away (i:e. in a } \\
& \\
& \text { straíght direction)' }
\end{aligned}
$$

The Intransitive locative verb indicates the direction in which an intransitive action occurs.
E.g.
//tőhti an nam ká•?, no ?ín cu.// 'The fish is floating to me.' (Float-toward it the fish, it to me.)
//hélhet an nam tahél.// 'The river is flowing in (i.e., baclwashing).' (Stream-in it the river.)
//fáhlé an nam sá•ñ.// 'The rice is swelling up.' (Swell-up it the rice.)
937. The Incorporated object verb consists of a stem of class l suffixed with \{qə\} 'incorporated object' followed by a directional suffix ( $D$ ) and (i\} 'intransitive stem closing sufix.'

Inccrporated object: $S_{1}+\{q ə\}+D+\{i\}$
\{ą\} 'incorporated object' indicates that the action of the stem carries over to an unstated object. It also occurs with quantifier stems.

SR: $\quad \rightarrow \mathrm{a} / \ldots \mathrm{Ca}$
E.g.
//riná•’qana// $\rightarrow / / r i n a ́ \cdot ’ q a n a / / ~ ' d i v o r c e ' ~$
//pó•yqəta// $\rightarrow / /$ pó•yqata// 'do many (things) to'
This paradigm expresses direction or aspect with respect to action relating to some unspecified object. The examples should help to clarify this meaning. E.g.
//léhq̧əla cin,// $\rightarrow$ /léhhəla cin./ 'I hit (something) up'. (Hit-object-up I.)
$/ / h a n u ́ u$-tqana cin.// $\rightarrow$ /?ahú•thana cin./ 'I've caused the noosing (of something.)' (Cause-noose-object-[perfective] I.)
 'He already made a noose of it.' (Noose-object[perfective] he, he already.)
938. The Possessive verb consists of a class 1 stem extended by a thematic suffix other than $\{\mathrm{h}\}$ 'reciprocal action' plus \{uvə\} 'possessive'.

Possessive: $S_{1}+\left[\begin{array}{c}D \\ \left\{\begin{array}{c}\mathrm{h} i t\end{array}\right. \\ \{k\}\end{array}\right]+\left\{u_{0}\right\}$
\{uva\} also occurs with nouns; it was described (along with its complicated allomorphy) under common noun derivation, e.g.
//hayúnñaz// $\rightarrow$ /hayúnnuva/ 'have something to hide';

 thing)'; 'to have something to ask'

The Fossessive verb is evidenced in only five examples of sentence length in the data. Forms with $\{t$ \} 'toward, down' and \{hat\} 'inward, to the interior' are not in fact evidenced; however, the generalized statement above, which includes all thematic suffixes other than \{h\} 'reciprocal action', is made on the basis of other distributions of these suffixes. \{h\} may well occur here also, but as its distributions are often at variance with the other thematic suffixes it is never presumed to occur where it is not evidenced.

On the basis of the five examples of the Possessive verb its meaning is construed as 'to heve to do' or 'to have done'. All five examples are presented. The forms are given phonemically, i.e.

- /’ət kahúlluvə ’am, to n̄å’ã?/ 'Don't you have anything to cook?' (Not cook-up-have you, of food?) /’ət kahúlnuva 'วm, ta n̄á?ā?/ 'Don't you have any cooked food?' (Not cook-[perfective]-have you, of food?)
/İ́pñuvokú•? ?an nam 'inkú•p./'The door has been opened.' (Yatch-out-wossessive-[face] it the door.)
/har̃á•lñuvə nun miné• hilá•./ 'These clothes have been caused to dry.' (Cause-àry-out-possessive they these clothes.)


# ／havé＇kuva cin．／＇I have something to request＇ <br> （To－request－have I．） 

939．The Stative verb consists of a ごニتil of class l， 2 ，or 3 ，or of a class 3 stem extended by $\{t\}$＇to，to－ ward，down＇，plus $\left\{a_{2}\right\}$＇stative＇．

Stative： $\left.\begin{array}{l}S_{1,2,3}^{*} \\ S_{3}+\{t\}\end{array}\right]+\left\{a_{2}\right\}$
＊Only six stems of class 1 have been observed with $\left\{a_{2}\right\}$ ；they are as follows：
／／harú•n／／＇to borrow，lend＇／／hú•／／／＇to cry out，shout＇ ／／hít／／＇to suck breath in／／te•t／／＇carry a child on sharply between teeth＇hips＇
／／h＇ıy／／＇to wait for＇／／？iñíh／／＇to sell＇
This suffix was not explored during field work；
hence it cannot be known whether the above mentioned limitation is an accident of the data or is a reflection of a true limitation and subclassing of class 1 stems． $\left\{a_{2}\right\}$＇stative＇occurs only in this one construction． It indicates（as does the construction）a condition which is descriptive of the subject；it cannot be stated to be a caused condition．

E．g．
／／híya／／＇be waiting＇／／lóra／／＇be in crawling posi－ ／／hú•＂a／／＇be crying＇tion（of snake）＇ ／／sakóna／／＇be bumpy＇／／cis•？ta／／＇be short＇ ／／síIta／／＇arrive at＇
／／parú•ya an yam mák，$\varepsilon$ l pá•Iti．／／＇The water in the bucket is murky．＇（Murky－be it the water，in bucket．） ／／lo＇ra an yam péc．／／＇The snake is in a crawling position．＇（［Crawling position］－be it the snake．） ／／hú•’a yin mé• ní•’．／／＇The children are crying．＇（Be－ crying they these children．）
／／mař’・クta on níh pati•？jíh．／／＇This house is long．＇ （Long－toward－be it this house this．） ／／c⿱㇒士口 ••＇ta on níh tahé•1．／／＇This river is short．＇
（Short－toward it this river．）
940．The Continuative verb consists oi a stem of any class plus \｛haka\} 'continuative'

Continuative：$S_{1,2,3}+$ \｛haka $\}$
The Continuative expresses continuance of an action or condition that began at sometime in the past and ex－ tends to some future time．It occurs only when the condition is subject to change－it is not usea of intrin－ sic characteristics．It is restricted semantically to occurring with verbs which can be continuative in meaning as opposed to verbs expressing a single event fixed at a moment in time－such as verbs expressing striking， arriving，ending，etc．

E．g．
／／s⿱㇒士口儿khaka an có•n，na i sinḱfkəə．／／＇John is standing in the corner．＇（Stand－continuous－he John，he in corner．）
/hař̀•nhaka an nam kanú•c, nə i nem lí•par̃ə.// 'The pencil is leaning against the book.' (Cause-slantcontinuous it the pencil, it into the book.)
//sáhhaka an nam ñכ•t.// 'The octopus is in a black condition.' (Black-continuous it the octopus.)
//patóhhaka an yam sampét.// 'The papaya is in a spotted condition.' (Spotted-continuous it the papaya.) Compare
//patóh an nam pí•ker̃.// 'The goat is spotted.' (Spotted it the goat.)
If this example had the \{haka\} suffix it would indicate a temporary condition rather than an intrinsic characteristic.
941. The Attributive verb consists of a stem of any class plus $\left\{\partial_{\eta}\right\}$ 'attributive'.

Attributive: $S_{1,2,3}+\left\{a_{7}\right\}$
The Attributive indicates that the verb modifies a following noun; the relationship between the subject and verb phrase is one of possession.
E.g.
//lařáke kanú•c cin.// 'I have a split pencil.' (Be-split-[aitributive] pencil I.)
//li’óho kalỹàn cin, to có•n.// 'I have a broken leg by Joinn's action.' (Break-Lattributive] leg I, by John.)
//urćhó ’aláha cin, ta linhúhno yam pilín.// I'm startled by the breaking of the bottle.' (Be astonished[attributive] body I, by breaking the bottle.)
//’ufóve kunr̈̄́•n cin.// 'I have cold feet.' (Cold[attributive] feet I.)
942. The Sequential verb consists of a stem of any class plus $\{$ hé $\}$ 'sequential'.

$$
\text { Sequential: } S_{1,2,3}+\{\operatorname{hr} \cdot\}
$$

\{hé•\} indicates that the action of the verb to which it is attached is completed before any subsequent action begins. The Sequential verb alone among the verb types does not require that its subject be stated. E.g.
 arriving at Mus they were made to drink.' (Arrive-after they at lius, [and then] immediately [be made to drink].)
 'When the chief came, then we worked.' (Arriveafter of the chief, then we work.)
//kih ately after bathing I walked around.' (Finishafter body I bathe, and [walk around]-imper-fective-self.)

There are two other suffixes of apparently general distribution with verb stems: \{qara\} 'negative absolute', and \{qanén\} 'deleterious effect'. They are excluded from the preceding presentation because
they occur in such infrequent examples that only tentative statements may be given.
\{qara\} 'negative absolute' is attested only with class 3 stems; however, this may well be an artifact of the limited data.
943. Negative absolute: $S_{3}+\{$ qara $\}$
\{qara\} indicates thet the action or condition expressed by the verb does not occur at all. The verb is always negated by \{? $\mathrm{\partial} t\}$ 'not'. Only two examples are found in the corpus, i.e.
//?at haróhqara cin.// $\rightarrow$ /? ft haróhhara cin./ II didn't sleep at all.' (Not sleep-[at all] I.)
 cin, vahé•./ 'I didn't play at all yesterday.' (Not play-[at all] I, yesterday.)
944. \{qanén\} :deleterious effect' is found only with stems of class 3. It indicates harmful or injurious results or condition.

Intensified effect: $S_{3}+\{q a \nexists \varepsilon ́ n\}$
E.g.
//pó•yqanén// $\rightarrow$ /pó•ynanén/ 'badly injured; greatly damaged'
 long time (with injurious results).'
\{qanén\} is attested in only a few examples; it might well have a broader distribution in a larger corpus.

## Examples:

//kir̂́nqqańn an, nə palá•ךəirén.// 'He has a bad injury.' (Big-injurious he, he is-injured.) //pó•yqaņ́n ’anóho ké•l an.// 'He has a very badly broken arm.' (Great-injurious broken arm he.)
 long time.' (Long-injurious he, he gone.)
\{qara\} and \{qanén\} are excluded from tactic discussion because of lack of data. In general they seem to have the distribution of intransitive verbs ( $V_{i}$ ).
950. Post-inflectional suffixation

The post-inflectional suifixes are suffixes which may occur attached to fully inflected stems. They fall into two classes: \{rén\} 'involuntary action', and a small class of nouns.
951. Stems with \{rén\} 'involuntary action'
\{rén\} occurs in immediate constituency with a number of verb stems as the terminal or semiterminal morpheme in the verb word. It is somewhat obscure in meaning. With intransitive and non-agentive stems it seems to indicate that the action expressed is not subject to voluntary control but is just the way things are. With causative stems this meaning is less clear but is probably still latently present.
\{rén\} has two allomorphs, as follows. rén - én
én occurs after a consonant, e.g.
 //hánén// $\rightarrow$ /há•nén/ 'to love' rén occurs after a vowel, e.g. //kumr̃átkarén// 'be hurried' //hacátirén// $\rightarrow$ /hacá•tirén/ 'be lost'
\{rén\} is found with simple stems, thematic stems, and fully inflected passive verbs, as follows.


Most of the stem＋IS sequences appear to be derived stems．With only a few stems does more than one thematic suffix occur．

The simple intransitive stems which occur suffixed with $\{r \varepsilon ́ n\}$ are a different set from the insiransitive stems which occur with a thematic suffix plus \｛rén\}. Examples of stems belonging tc this class are given below．The asterisked forms may occur without \｛rén\}. These stems are distributed like intransitive stems and are considered a subclass oi $\hat{S}_{3}$ ． with TS：
\｛cáty－\} 'be lost' \{kíht-\} 'be in danger (toward)
$\left\{y \varepsilon \cdot{ }^{\prime} \eta-\right\}$＇be wasted＇（king－\} ~ ' b e ~ i n ~ d e n s e r ~ ( a w a y ) ' ~ without IS：
\｛t⿱㇒士口䒑ウー\} 'find' \{hán-\} 'be in love with'
\｛kó・ク－\} ~ ' b e ~ a b l e ' ~ \ { i n a ́ n _ \ } ~ ' b e ~ l a t e ' ~
Transitive stems with \｛rén\} all have bound thematic suffixes．Tine forms are active and function as Refer－ ential stems，occurring with either personal or non－ personal referents；they are considered a subclass of $\mathrm{S}_{1}$ ． Transitive stems occurring with $\{r$ rn $\}$ in the data are the following．
$V_{t}:$

$$
\text { 〔hucátn-\} ~ ' t o ~ l o s e ' ~ * \ { h a l ́ ̇ n t - \ } ~ ' t o ~ a l l o w ' ~ }
$$

 occur with $\{r$ ह́n $\}$; both have bound thematic suffixes. They are considered a subclass of $S_{2}$. I.e.
\{?amáhn-\} 'do accidentally' \{palá•’y-\} 'be injured'
Thematic transitive and non-agentive stems with \{rén\} have corresponding passives. In no other instance does $\{r$ 'n $\}$ occur with passive verbs. \{rin\} was usually given by the informants as optional with these passive verbs. Fassive suffixation of stems with \{ren\} is identical to that of thematic stems of class l, i.e.

$$
I \dot{x}+\left\{\partial_{5}\right\}+\left\{r^{\prime} \underline{n}\right\}
$$

E.g.
//halánkarén// 'be cured'
//aakíhturén// 'be tortured'
//palá•?iorén// 'be injureá'
Reflexive forms of the $V_{t}$ thematic stems $+\{r \varepsilon n\}$ are formed by the addition of $\{\tilde{\mathrm{r}} \varepsilon\}$ 'reflexive' to the stem, following \{rén\}, e.g.
//halárkénī̌// 'cure oneself'
//halś̊nténr̃e// 'permit oneself'
952. Stems with suffixed nouns

In some instances of the regular tactic sequence.
$\mathrm{VP}+\mathbb{N}^{\prime}(\mathrm{sec} .3310)$ the juncture separating the verb and the noun is dropped；the noun occurs as a verb suffix． Diachronically，this appears to be a change which the language is undergoing at the present time．In some instances the composite form has a highly idiosyncratic meaning；in others the stem does not occur without the attached noun．The composite form appears to be a kind of secondarily derived verb：secondary because the ＂derivational affix＂，i．e．，the noun，is attached to the fully inflected form．Structurally，however，the forms are fully described by the regular verb phrase construc－ tions．In all instances the noun involved pertains to a part oit the body．

ㄷ．g．

$$
\begin{aligned}
& \text { '(attributive)', \{kú・つ\} 'face'.) } \\
& \text { //siño•nkú•?// 'be ashaned' ( } \text { (siñó•n\} does not } \\
& \text { occur; \{kú・の\} 'face') }
\end{aligned}
$$

$\left\{a_{4}\right\}$ '(non-personal referent)', \{kúy\} 'head, top'
When the nominal suffix begins with a vowel, the juncture is reglaced by ${ }^{2}$ ，e．g．
\｛？akána＋$\varepsilon 11 o ́ \cdot n\} \rightarrow / /$ ªkána？${ }^{2} 110 \cdot n / /$＇to know（a fact）＇\｛’akán\} 'know', $\left\{o_{7}\right\}$＇（attributive）＇， ／／Elló•n／／＇insides（oi a person）＇
 tasting＇，／／عlㄹát／／＇eyeball＇）
950. Minor Verbal Suffixes

The minor verbal suffixes presented below share the characteristic that they are either of extremely limited distribution or of very infrequent occurrence. Some additionally are of quite obscure reaning.

1. Suffixes of very restricted distribution.
\{me\} and \{hec\} are presented together because they both have been observed only with the one stem \{rón\} 'to still be doing, engaced in'. They seem to add the idea 'uhile'. ronhzc is a predicate, róņmo a predicate auxiliary.
E.g.

//rónmo fá•l cin.// 'I'm still running.'.
 عl camámr̃e.// 'Although it is light he is still in bed.'
//rónhəc rén cin, vé•’ohú•" lí•por̃e.// 'I'm still reading.'

Whitchead lists the suffix \{hec\}, which is not in my data. Ie gives the neaning 'a verbal affix denoting continuance of action or state. c.f. haka; hak.' This is perhaps the same morpheme as \{hec\}, above.
\{rín\}, of obscure reaning and use, is seen in the derivation of //ts•?orén// 'be able' from (kó?-\} 'be able'. Fote the following examples.
//ká•ª̂̀rén yin nác, vó*k.// 'You can bathe now.' (Can you now bathe.)
 kó.? tú-klén meh.// '....and you would not be able to think that I could puil you up.' (...and can would you, not-think, that $I$, can pull-up you.)
\{rəə is seen in only the following example.
//ké•?ər̃ə əp kanú•t cu man, i kúy mí•s.// 'Go and get my comb on the table.' (Get the comb my you, on top table.)

Whitehead corroborates these forms and suggests that the $\tilde{Y}$ is a phonological variant of $\{t\}$ 'down, toward'. This may well be the case.
2. The following suffixes ail occur elsewhere as noun roots or numeral suffixes.
\{İít\} as a noun root means 'tail, end'; it occurs suffixed to a simple, passive, or non-personal referent verb and indicates that the event or person named follows some other event or person.
 all said "boo" after the lecture." (ill-together say we boo, after-end it-was lecture.)
//tÍmərit cin, to nam píhərie.// 'I'm foilowed by my wife.' (Follow-after I, by the wife.)
\{tít\} with both numerals and verbs, indicates that something is the 'remains, what is left'. E.g.
//lú•ytít nup kúk cá・ク.//. 'Three units of coconut remain.' (Three-remain these nuts remnant.)
//ći•ctít limón ən níh.// 'This is the remains of a squeezed lemon.' (Squeeze-remain lemon it this.)
The meaning of $\{t i ́ t\}$ is obscure in the following example.
//vi•tít gíh inrú• cin.// 'I'm mending the umbrella.' (Hiake-remain this umbrella I.)

Whitehead considers this occurrence of \{tít\} as a separate morpheme, meaning that 'something has been renewed'.
\{váh\} as a noun refers to a wound or perhaps death. is a verb suffix it connotes coersion or relentless pursuance - perhaps to the point of death. It occurs with non-personal referent verbs. E.g.
//li•pnəváh o cin, nə hiyó•y.// 'I force him to drink' (Force-away-insistentiy him $I$, he drink.)
//’akínəváh əp tíksonəríi•’ cin.// 'I'm out to get a dictionary.' (i.e. I'm determined to have one.) ([Determined to get]-(perfective)-insistant the dictionary I.)
1000. The Interrogative

Eight of the twelve interrogatives are an interlocking set of forms which share morphemic composition. The "class" is essentially a semantic one, with only some of the forms sharing distributions. It is convenient to present them together along with their statements of distribution, to describe their morphemic structure and to facilitate reference. Tactically, they fall into four structural classes; they are presented according to the classdefining criteria.

1. Fredicate interrogatives: forms which occur in preaicate position.
(a) Forms occurrins both with or without 2 following noun:
$=$

| sitíh | 'How' |
| :--- | :--- |
| 'asúh | 'What' |

isuh 'Where' iř̃.? 'How long'
(b) Forms not occurring with a following: Inf
?acíh 'Who'
ehé. 'When'
These two interrogative distributions parallel those of non-referential verbs when they occur in predicational position; they might be considered as
verbal interrogatives, i.e., as occurrinf as the head of the $V R$ and $V \mathbb{N}$ constructions, respectively. But as N' is optional with VNR but obligatory here with ITR, and as the interrogatives are not distributed in the satellite construction, this analysis is rejected. E.g.
(a) //sitíh tí・ク ap na fé•lán?// 'How did he beat him?'
//tatmak, isúh ay ahéh?// 'Mot-water, where shall we search?'
 you will go?'
 going to want this book?'
2. Forms occurring as HP , i.e. as a nominal or verbal possessor, e.g.
yíh 'where, in (from) what direction' cíh 'who'
E.g. //iyćn yíh $\operatorname{\text {am?}}$ ?// 'Where do you stay?' (stay where. you)
 fish?' ([What is caught] who it this fish, this.)
3. Numerator question word, i.e.

गá-m 'How many.'
irs•k- 'How big' (The affixed forms are discussed under quantifiers, sec. 620.)
\{ $ᄀ \mathfrak{a} \cdot \mathrm{~m}\}$ is distributed as a numeral, $\{i r s \cdot k-\}$ as a numeral plus classifier, e.g. //つá•m taka yip tarík, $\varepsilon$ I गuřho.// 'How many men are in the room? (i.e., 'what quantity')
4. A single question particle of unique distribution, i.e.
y5h 'Which, what'
Distribution
(a) as object of verb, e.g.
//akír yóh əm méh? $\varepsilon$ ?// 'What are you after?'
(b) in the unique construction which follows.

Three of the interrogatives, \{isúh\}, \{yíh\}, and \{y5h\}, occur in the following iaciomatic phrasal construction:

Subordinate pronoun + Interrogative The construction is a minimal sentence.
E.g.
//əm isúh?// 'Where?' (with respect to you)
//nə y5h?// 'Why?' (with respect to him)
\{yíh\} is only found in one example, i.e.
//ap yíh?// 'i/hich?'
A subordinate pronoun $+\{y$ ýh $\}$ may occur as a member of IR, i.e., predicationally and optionalIy before $\mathbb{N}^{\prime}$; the pronoun of the $\{y 50\}$ phrase agrees with that of the subject.
E.g.
//ap yJh ap tarík róन meh?// 'Which man were you speaking about?' Interrogative derivation involves the following morphemes.

Derivational prefixes:
\{Pin\} 'locative' (ailomorph //i// occurs here) (Sec. )
\{a\} '(concrete reference)'
The distribution of the prefixes defines two classes of roots.
A. \{hé•\} 'when' (subordinate conjunction, sec. )
\{súh \} 'what'
$=$
\{ro.9\} 'length'
\{ró-k\} 'size'
B. \{cíh\} 'who'

The constructional statements are as follows.

1. $\{$ Pín $\}+A$

SR: //i// $\rightarrow / / V_{1} / / / / h V_{1}$
E.g.

| //isúh// | 'where' |
| :--- | :--- |
| //ehé•// | 'when' |

$$
\text { 2. }\left\{?_{a}\right\}+\left\{\begin{array}{l}
B \\
\{\text { súh }\}
\end{array}\right.
$$

I.e.
//7acíh// 'who'
2000. Minor Form Classes

The minor form classes comprise nineteen small classes, many of which consist of a single member and all but three of which are uninflected particles. The non-particle classes described here include the adjective, the temporal locative, and the demonstrative locative. The adjective is a derived form consisting of a particle plus a stem of any of several classes. The temporal locatives only turn up as particles in my data; Whitehead presents them in a number of suffixed forms, most of which appear to be verbal sufiixes. The demonstrative locatives are a small class of roots which may occur derivationally with a locative prefix and inflectionally with a deictic suffix. Their distribution and use are similar to those of the temporal locatives, hence their inclusion with the minor form classes.

The statement of distribution of each of the classes in this section is presented along with the description of the forms, obviating the need of including them in the tactic statements of Chapter III, thus greatly simplifying the presentation there.

## (Sheet missing)

2010. The grammatical relator \{ta \}'(gramnatical relator)' introduces words, clauses, and phrases of a modificational nature. Specifically, it introduces the adjective, which is described below, and (1) the respectual satellite, and (2) the indirect statement, both of which are related in an exparsional or modificational way to the predication.
E.g.
(1) //13•cna cin, to nam có•n.// 'I run past the tree.' ([Run past]-away $I$, of the tree.)
 know that he will come.' (Inow [do mind] I, that he will, he come.)
2011. The adjective

The adjective is a phrasal construction corsisiing of \{to\} 'srammatical relator' plus or minus \{əəも\}'nesative', plus a verb, a numeral, or the quotational \{yo\}.

$$
A d j:+\{t ə\} \pm\left\{\jmath_{\partial t\}}\right\}+\ldots\left\{\begin{array}{l}
\text { Vumerə } 1 \\
\{\text { Verb }
\end{array}\right.
$$

When $\{$ to $\}$ and $\{0 t\}$ 'regative' occur in seauence they frequently contract to //tot//; i.e., the slottal stop and one of the schwas are dropped. As with \{? ${ }^{\text {at }}$ \} \{to\} or //tat// plus a word beginning with a stressed syllable usually do not occur with intervering juncture and are written as a sincle mord, e.g.
//tatk5・ッ// 'unable'; //talé•n// 'Eood'

On the basis of the available data it has not been possible to determine the function of the inflectional suffixes with verbs in the adjective construction: Neither has it been possible to determine whether all the suffixed forms of each verb may occur freely as adjectives, or whether, at the other extreme, a single configuration is used with each verb as the only adjective type. The data are suggestive that in fact there is some freedom of occurrence of the various verb forms in the adjective construction, but that there are limitations of a highly idiosyncratic nature, requiring that very specific statements be made - statements which the available data do not allow. It may be said in general that no examples are found in the adjective construction of verbs having the personal referent, non-personal referent, or possessive suffixes. This is an area requiring additional data and study.

Examples of adjectives: //təpIkla// 'springing' (intransitive locative) //tosúktər̃q// 'picked up' (passive)
//təsáh// 'black'
//torá•"okú・ク// 'Iowland' (\{kú・フ\} 'face, surface' //to tafúltorir $\varepsilon / /$ 'six more' (incremental numeral) //tohér// 'one' //tanə// 'which is thus'
Note: the numeral adjective is distinguished as $A d j_{n}$ due to its siightly different tactic distribution.

2030．The demonstrative adjective
\｛nam\} 'the' is a non-locative deictic adjective. In its occurrence as the subject expansion of a third person non－past visible pronoun，i．e．\｛an\} 'he' or \{nun\} ＇they＇，\｛yam\} occurs essentially as a semantically empty position holder if the noun is intangible and absiract．
 great＇
／／míka an nam pinhe•？əkí？？／／＇The fear is ap－ parent＂

When a concrete noun follows \｛yam\} the latter is redundant in that the preceding／／an／／＇3rd．se．vis．pres．＇ also maris singularity and visibility，e．E． ／／kápa cu an nam ’ám．／／The doE bit me＇ ／／palín an $⿰ 习 习 \mathrm{~m}$ pilín．／／＇The bottle is roling＇ Aaditional examples：
／／kasóh nam có•n cin．／／＇I slip－lnot－tiea the los＇
／／ké•？tə nam mú• nor̃e．／／＇Bring the club＇
／／harún gam ñí？，nə kúc．／／＇Mrain the child to write＇

2040．Adverb
An adverb is a word which occupies the final tactic position of the phrasal predicator construction．The class includes the demonstrative locatives and the following three morphemes．

```
    \{hé•k\} 'again'
    \{sín\} 'for a moment, previously'
    \{takó•\}. 'very' (predicate emphatic)
```

E.g.
$/ / t \dot{x}^{-c}$ hé•k yik tarík．／／＇The men planted again．＇
（Flant again those－past men．）
／／ḱ̇⿱㇒士口七亍n takó．？an．／／＇He is very old．＇
 of all they raced to the opposite side．＇（［Go to opposite side］－reflexive first－of－all they，they face－to La？c•ti．）
\｛hé－k\} also occurs in one example in which it appears to be a simple predicate followed by a subject phrase， i．e．／／hé•k mé• yá•c tarík，nəŋ katú•yarén．／／＇igain those poor men rushed out in vain．＇（Again those poor man，they－only［be in vain］．）

2050．Temporal locatives
The temporal locatives are a class of six words which locate the predication in time，i．e．
\｛amóh\} 'iast night'
\｛hurínc\} 'tomorro:'
\｛misi・フ\} 'long ago'
\｛tah́y y\} 'just now'
\{tanamúh\} 'today'
\{vahé•r\} 'yesterday'
\{tonamúh\} is a derivative, consisting of the distal demonstrative pronoun /yamúh/ 'that' plus the prefixed adjective morpheme \{to\}.

The temporal locatives are distributed as follows:
I. predicationally,
2. after the demonstrative adjective, \{nam\} 'the',
in locative phrases,
3. after the predicational nucleus or, optionally, clause semi-finally, either preceding or following an optionally present demonstrative locative.

When occurring after a predicational nucleus which has as its suoject an expanded 3rà person 'not-visible' or 'past' pronoun, the temporal locative occurs before the expansion.
(I) //vahér an, no ké•?tu.// 'It was bought yesterday. (Yesterday it, it bought.)
(2) //hó• kalán cin, hé•k kú•c eksé•m, i yam tojamúh.// 'I want to try to take the exam this time.' (want try I, again write exam, in the now.)
(3) //hén taka jk misí• tafísi.// 'Once there was a wiãow. (One [person] she was long-ago widow. $\left.P+S u b+A_{t}+S_{\exp }.\right)$

$$
\begin{aligned}
& / / v e ́ \cdot n ̃ u n a ́ n ~ c i n, ~ t o ~ c o ́ \cdot n, ~ h u r I ́ c . / / ~ ' I ' l l ~ b e ~ \\
& \text { told by John tomorrow.' (Say-[passive]- } \\
& \text { ear I, by John, tomorrow.) } \\
& / / \text { yáckú• cin, tahíy, ná•?.// 'I already } \\
& \text { ate just now.' (Already-face I, just- } \\
& \text { now, eat.). }
\end{aligned}
$$

In its use as a predicate, $\{$ vahér $r$ \} occurs as a stemin $\mathrm{VP}_{3}$, i.e., before a noun, e.g.
//vahé•rə "inváhə an nam mánka.// 'The mango was bought yesterday.' (Yesterday-[attributive] buying it the mango.)

Whitehead presents various suffixed forms in his dictionary; they are presented here in the likelihood that they would turn up in a larger corpus. An indication of what the analysis of the suffixual construction migit be is also given.
-əten 'from-onward' is given with \{amoh\}, \{tanamuh\} and \{misi-\}. The suffix looks like the directional $\{t\}$ 'towarà, down' plus \{rén\} 'involuntary action; the schwa is unaccounted for.
-hanen is given vith \{tonamuh\}, where it seems to. be my \{qanén\} 'deieterious effect', and with \{vahe•\} where the meaning is 'from yesterday'; this does not seem to be the same as \{qabén\} and is unaccounted for. \{hur¥c\} is presented with three suffix configurations, as foliows: huricleñe 'the coming of the morrow' (looks

Iike the Incremental quantifier sequence, sec. 634 ); harモcŋorit (pertains to leaving tomorrow; looks like \{n\} 'away, [perfective]' plus \{o\} 'non-personal referent.' plus \{rit\}, the minor verbal suffix which indicates that something follows something else); hurIca 'tomorrow' (a/a/ looks like the stative $\left\{a_{2}\right\}$; its use is not clear from the data.)
2060. Demonstrative locatives

The demonstrative locatives are a class of forms which are iuentified by both morphological and tactic criteria. Morpholosically, they occur with $\left\{{ }^{\prime} a\right\}$ 'specificative', a morpheme which also occurs with the demonstrative pronouns. Tactically, they are distributed Eike locative phrases; their srecific distribution is Given below. Semantically, as a class the forms locate the action of the predication in space.

The demonstrative locative roots (DI) are as follows: \{híh\} 'here' \{múh \} 'there'

The DIs are optionally but usually prefixed with $/ / i / /$, which is probably an allomorph of \{Pin\} 'in, at, to', e.E.

$$
\begin{aligned}
& \text { //níh - iníh// 'here' } \\
& / / \text { múh - imúh// } \rightarrow \text { /múh ~ 'umúh/ 'there' }
\end{aligned}
$$

The demonstretive locavives are distributed as follows.

1. Predicationally.
2. As adverbs, i.e. following, and in immediate constituency with, a predicate.
3. Clause finally, in immediate constituency with the clause. (i.e., as a clause satellite.)
4. In one example, before the expansion oí a 3rd person 'east' pronoun subject. This is a distribution they share uni.quely with the temporal locatives.

Derivatives occur with the prefixes $\{\varepsilon 1\}$ 'in', and \{lá-7\} '(classifier with paired body parts)'. The derived forms occur too infrequently for a definitive statement on distribution; however, they are found in distributions 2 and 3, above.

The four forms are as follows (note the unstressed allomorph //la// of \{lá•"\}):
//Elmunin عihíh// 'over in there; in here'
//lamúh; lahíh// 'on that side; on this side'
The emphatic morpheme \{?a\} '(specificative)' occurs with the demonstrative iocatives and their derivatives, as it does with the demonstretive pronouns, when the speaker is pointins to or emphatically singling out the location.
$\left.\begin{array}{l}\text { DL derivatives }\end{array}\right]+\{1 \mathrm{a}\}$
E.g.

$$
\begin{aligned}
& / / i m u ́ h ` a / / \rightarrow / \text { umú?a/ 'there! (specificative) } \\
& / / \text { lahíh’a// } \rightarrow / \text { lahi?a/ 'on this side' (speci- } \\
& \text { ficative) }
\end{aligned}
$$

Examples of use of demonstrative locatives.

1) //ihíh cin.// 'Here I come.'
2) //Piy邹 híh cin.// 'I live here.' (Iive here I.)

'Sit dom there.' (Sit-down-reflexive you, there.)

'I see him yonder.' (Eee-him I, yonder.)
3) //hén taka ok imúh tafí•si.// 'There is one
widow.' (One [classifier: peovle] she-was there widow.)

A form similar in shape and distribution to the demonstrative locatives is \{i’a\} 'next, last, there'. It occurs clause finally and adjectivally and locates the action in time as well as in space.
E.g.
 was last month.' (In ras last month conception it.)
//Tú•cóřre man, í?a.// 'Sit down next to me.' (sit-[perfective]-self you, next.)
2070. The directional locatives

The directional locatives are two forms which pertain to the direction or location of the action or condition. Their distributions are similar but not identical.
\{عl\}'inside, into, in the midst of', in contrast to the general directional-locational focusing morpheme \{?ín\}, very specifically pertains to the spatial or metaphorical locus 'in, inside, into'.
E.E.
//súktor̃e an, no $\varepsilon$ l mák.// 'He fell into the water.' (Fall-down-self he, he in water.)
$/ / \varepsilon l k u ́ \cdot y u$ an có•n, nə $\varepsilon$ l iskú•1.// 'John is clever in school.' (Intelligence-have he John, he in school.)
$\{\varepsilon I\}$ occurs as the first morpheme in many derivatives; //Elkú•y// 'head, skull' (in-top), is one example.
//Elkatóh// 'under' is another derivative with \{عl\}: a derived locative. //katóh// 'below' is not attested elsewhere. The distribution of //Elkatón// is identical to that of $\{\varepsilon]\}$. .
E.g.
$/ / \varepsilon l k a t o ́ h ~ 2 p ~ c o ́ n / / ~ ' u n d e r ~ t h e ~ t r e e ' ~$
\{ín\} expresses location, direction, or accompaniment. It is translated as in, on, at, by, from,
with, of, to'. It has the following allomorphy. ?ín $\infty$

Iín occurs with proper animate nouns, possessive pronouns, and $\{\tilde{r} \varepsilon\}$ 'reflexive', e.g.
//フíno// 'with him'
//’ínĩe// 'to oneself'
//ワín cón/! 'to John'
$i$ occurs elsewhere, e.g. //i kána có•n// 'to the side of the ship' //i nam lí•per̃e// 'in the book'
\{in\} is distributed as follows:

1. As the introcucer to the locative phrase, e.g. //i kuyá•yə// 'by the seashore'
2. With the possessive suffix \{uva\} as a predicate meaning 'have', e.g.
$/ / h \check{\circ} \cdot$ วînu cin, tó $\varepsilon . / /$ 'I want to have it.' (Vant have I, of it.)
3. IIodal particles

The moaial particles express the likelihood of the occurrence oi an event. The class ccnsists of four forms which typically occur aster the clause subject. They may, however, precede tine subject if it is an emphatic
pronoun. The members of the class are as follows:
\{min\} 'will' (future) is distributionally idiosyncratic in that in passive sentences it may occur after either the subject or the agent.

A derivative of $\{\min \}$ is $/ / m i n a / /$, which has the same aistrioution as \{min\} and seems to indicate a greater degree of certitude on the part of the speaker as to the occurrence of the future event. Its meaning is not entirely clear.
/pasúh ap la?én meh mínə, ip har̃áp?// What will you do this evening? (what it-[non-past] doing your will-[definite], in-[non-past] evening.)
//hasínna Pinsín cin mínə.// 'I will (definitely) put up the stabalizing beams.' (Fit[perfective] beams I will-[definite].)
//hasi•nno ’insín cin min.// 'I will put up the stabalizing beams (probably).'
/Pakáholó•n cin, tá $\partial$ min, no yíh.// 'I know that he will come.' (Know $I$, that he will, he come.)
\{ñin\} 'might' (potential) indicates that an action or condition might occur.
$/ / v \dot{\varepsilon} \cdot\urcorner$ ñunán $c i n$, to cé•n, to lú•si ñin, ne yíh, no ihíh.// 'I'm tola by Jane that Lucy might come here.' (Say-out-[passive]-ear I, by Jane, that Lucy might, she come, she here.)

 'Oh: How foolish we are to toll for the moon; if it is eclipse, because it might be swallowed by the python.' (Ch! No knowledge our, we only toll-out the moon, if it it eclipse, because it might, it swallow-down-[passive] by-the-[nonpast] python.)
\{laj\} '(intentive)' indicates that the speaker intends to accomplish an action; it implies desire to do so.
 going to do tomorrow?' (What it-[non-past] intend do you, tomorrow.)
$/ / h \tilde{y} \cdot$ yíh cin laŋ, ’ín meh.// 'I wish to come to. you.' (Want come I intend, to you.)
\{or̃ $\varepsilon$ \} 'would' (conaitional) indicates that the action is contingent on some other condition or action. If both the condition and conditioned clauses occur, \{əَ̃ $\}$ occurs with the one which is stated first; it optionally occurs also with the second.
$/ /$ ê`vrén cin $\partial \tilde{\mathrm{c}} \varepsilon$ tá $\varepsilon$, yec imúh.// 'I would have done it if I were there.' (Do I would of it, ifI there.)

 ?ət ñátəló•n tá cu, kó•? tú•klén meh.// 'If you
had only half as much brain as you have beard you would not have thought that I would pull you up.' (If you would better only half knowledge, at size these hair-face-your, then able[involuntary] would you, not [be thought]mind that $I$, able pull-up you.)
2090. Subordinate conjunctions

The subordinate conjunctions are a class of four forms which occur in the initial tactic position of the subordinate clause; they are as follows.
\{hé•\} 'when'
(hร́•\} 'so that' (homophonous with \{h'̃.\} 'want to')
\{ps.0\} 'because'
\{yé••\} 'if'
E.g.

'I will be sitting when you close the door.'
(Sit-[continuative] I, when you will close-downface door.)
//hóy kö kalú•y non yí•?ə, hố• yí•?, ’วt laŋán.//
'Each of you take three, so that you won't be . burdened down.' (Only each three [classifier: long object] you, [so that] you not weighted.)
//nati•" yin vé• ta "akáha tarík, yé•n por̃ó• na kapáh.// 'Thus it is for good men, even though they are dead.' (Thus they these which good men, if-they although they dead.)
\｛hé•\} 'when' also occurs as the introducer to the ¿urative phrase，e．g．
／／mařo・クqanén misí・ク，i pú•，hé• yik má•misí・ク，hén taika ok to＇akána tarík．／／＇Iong ago in Car Nicobar，during the time of the ancestors，there was a certain gooa man．＇（Long－［deleterious effect］ago，in［Car Nicobar］，during those ancestors，one［classifier：people］he－was of good man．）
2100．Predicate auxiliaries
The predicate auxiliaries occur as the first element of the phrasal predicator，after the optional connective． Three predicate auxiliary morphemes have been icientified， as follows：
\｛hõ．\} 'want to'
＝\｛hán\} 'only, simply' (Recall that the subordinate pronoun \｛na\} plus \{hón\} contract to //non//)
／／rónmə／／＇still＇（The derivation is described in sec． 960 ）．

E．g．
／／’əthó＇haróh cin．／／＇I don＇t want to sleep．＇
 child is whining to be with his parents．＇ （whine－［involuntary］he this child，he want with parent－self．）
／／cúh フitǐi an，non hén tak．／／＇ie ：ent to Itki
alone.' ([Go to] Itki he, he-only one [classifier: people])
//hév íl cin, ihíh.// 'I'm nct yet here.' (Only [not be] I, here.)
//róngə vó•k cin.// 'I'm"still bathing.'
2110. The distributive
\{ko\} '[distributive]' indicates that the action or condition of the predicate pertains severally to each member of a plural subject. It occurs immediately before the predicate of a phrasal predicator, having been attested with verbs and numerals.
//kə róktikú•・テ̃६ nun miné•kinlañpá•// 'The holes are of various sizes.' (Each [be size]-to-face-self they these hole.)

'Each of you take only three of them so that you won't be buràenecu.' (Only each three [classifier: long objects] you, so you not burden.) 2120. Connectives

There are two connectives, each havjry differing distributions and requiring separate statements.
\{nac\} 'and' indicates action seouence, that the event mentioned occurs next and happens at once. It is very frequent in narrative texts. Distributionally, it occurs either in the first tactic rosition in the
clause or, alternately, as a subject substitute, in which case the clause subject is identical to that of the preceding clause. In this latter position it has a stressed allomorph, //nác//; it may be followeã by a subject expansion.

## E.g.

 'And when they finished singing a song...' (And when they, they finish-voice, they singself...)
//yónlə nác, an təké•n.// 'Industrious then climbed up.' (Climb up then, she Incustrious.)
//đú•ktén o nác, nə i rón hav̇́ -nə.// 'She then pulled her down from the cobweb.' (Pull-down her then, she frcm strand cobweb.)
//có•ro kalrôə $n$ nác táké•n.// 'Industrious was then stiff legged.' (Stiff leg then Industrious.)
\{parīi\} 'but', is an alternate or adversative correlator; it guts the clause with which it occurs into contrast with the preceding clause or sentence.

Distributionally \{porî\} is found after the predicator. Specifically, it occurs in the data following verbs; its position with respect to adverbs, which also follow verbs, cannot be determined from the data.
\{pərì has a stressed allomoroh, //pəriih//, which occurs in macrosesment-final position.

E．g．
／／pəřs• cin hakíptén o to hisá•p，sínnə $\mathfrak{r} \varepsilon$ parí anáh’ə̈，nə ’əthìví •？．／／＇Although I taught him math，as yet he doesn＇t know．＇（Although I teach him of sum，yet－［perfective］－［reflexive］however he，he not－know．）
 mát yam cinśt．／／＇She was then lame，but con－ tinuing，she went to the moon．＇（Stiff legged and she，continue－［by foot］but，she［go to］ face the moon．）

## 2130．Coordinators

\｛inre•\} 'and, also' coordinates words or phrases of the same grammatical class；it occurs at the end of the series．

E．g．
 eats，writes，and reads．＇（Eat he，write he， read book and．）
／／kalú•ctá mák cin，na i tú•t，i 刀jok inr̃e•．／／＇I mix water with milk and coconut milk．＇（Mix－． to water I，it with milk，with［coconut milk］ and．）
\｛ná－つ\} '(dual coordinator)' and \{hé•\} '(plural coordinator）＇occur before the proper animate nouns in $a$ series to be coordinated．\｛ná・ク\} occurs before each of
two nouns in a series; \{hé-\} occurs before each of three or more, e.g.
//ná• Irét, ná•’ lívin// 'Fred and Livingstone' //hé• có•n, hé• mé•rii, hé• lú•si// 'John, Mary and Lucy.'

Ordinarily in sequences of three or more names the \{hé•\} coordinator occurs only with the first, with the final noun followed by \{inre.\} 'and, also', e.g.
//hé• có•n, mé・さ̃i, lú•si inr̃e•// 'John, Mary, and Iucy.'
2140. \{ ? ət\} negation

Word-level negation is accomplished by the occurrence of \{?t\} '(nesative)' before the word to be negated. It occurs with verbs, predicate auxiliaries, nouns, demonstrative adverbs, numerals, and the locative.

When \{"ət\} occurs before a word beginning with a stressed syllabie the intervening juncture is dropped. In such instances $\{$ ? $\partial t\}$ is written as a prefix.
E.g.
with nouns

$$
\begin{aligned}
& \text { //?otlípeřeua// 'have no book' } \\
& \text { //?ətlónuo//. 'want nothing' } \\
& \text { with verbs }
\end{aligned}
$$

$$
\begin{array}{ll}
\text { //’ətvi•?tu// } & \text { 'not fitteã' } \\
\text { //’ət kahúlnū// } & \text { 'to not have cooked' }
\end{array}
$$

with predicate auxiliaries

$$
/ / \text { əthö'// 'not want to' }
$$

with numerais

> //’athénə// 'not a single'
with cemonstrative adverbs
／／’at imúh／／＇not there＇
with the locative
//?ət?ín// 'not with'

2150．The Quotational particle
\｛na\} '[quotational]' indicates that what is said is a direct quote；it occurs in an explanatory ciause either preceding or following the quote，occurring either predicationally or adjectivally．
$\left\{g_{0}\right\}$ has the allomorph／／yeh／／when occurring with macrosegmental stress． E．g．
 a voice saying＂Run＂．＇（Hear the－was voice I， which thus，＂Run－away－self you＂．）
／／＂tulán！tulán！＂ño ảáh’ə，no hú•’a．／／＇＂Python！ python！＂he said，crying out．＇（Fython：python： said he，he［cry out］－［stative］．）
 ＂təつ多解＂．／／＂Therefore it is called ta＂oko， which means，＂which is drunk＂．＇（Therefore，it， it ta’ona，name，the which thus interpret， ［＂which is drunk＂］．）
2160. Action referents

The action referents are a class of three forms which are defined by their unique distribution in the respectual satellite. Each is a term referring to a part of the body; it indicates that the action of the verb is accomplished - probably by the said body part. The forms are as follows.
\{ḱu-?\} 'face, surface; do by hand'
\{řəə $n$ \} 'foot; do by foot'
\{tí•白 is historically a noun meaning 'hand' but now is found with that meanins only in derived forms; it never itself occurs in the noun phrase. As a free form \{tí•?\} means 'do by hand'.
2170. The obligational \{pace\}
\{péca\} is a particle of unique distribution, occurring in immediate constituency with the subject of an Independent clause. The subjectis always a subordinate pronoun and is infixed in \{peco\} after the initial CV; c.f. the discussion of pronominal contractions, sec.
\{pəcs\} expresses obligation, necessity, or command; it gives emphasis to a request. Its most frequent distribution is with the subject of imperative clauses. E.6.
//1系k nin pemci.// 'Stop by sometime.' ([Go-via] here you-[obligational].)
2180. Predicational particles

The predicational particles are morphemes which are identified by their sole distribution as simple predicates. Four such forms have been identified, one of which is derived from one of the others. The forms are as follows.
\{por̃5•\} 'although, even though'
\{?űh\} '(negative imperative) Don't!'
\{róh\} '(negative interrogative)'
 is used simply as a regative affirmative: 'to not be'
\{řob\} has the following allomorphy. Froth $\infty$ hêh ríh $\infty$ hón occurs with $\{:, ? \partial\}$ 'emphatic',ie. //ř̊̆h"ə - höh"ə// F̌ôh occurs elsewhere.
//řbh?o// 'negative emphatic', consists of \{řóh\}
 with pronouns.

Recall that \{ $\mathfrak{u}$ \} $\}$ and \{rosh $\}$ contract with followins proncuns.

A clause which has \{poř5•\} as predicate always has a predicate satellite expansion and is coordinated with an independent clause, usualiy one with a form of \{śn $n$ \} 'yet, nevertheless' ( $V_{1}$ ) as its predicate.

## E.g.

 kiřa•nəər̃ع.// 'Although it is raining, yet I went. (Although it, it rain, yet I, I went.)
2190. Exclamations

Exclamations are identified by their aistribution in fragmentary sentences, in which there is always an emphatic stress. Semantically they fall into two categories: vocatives and expressions of surprise.

Vocatives:

| cí•’ | 'Sick 'em!' (said to dogs) |
| :--- | :--- |
| cóh | 'Here!' (archaic; used in giving |
| cón | something) |
| kamó• | 'Let me see it:' |
|  | 'Hey there:' (said to ask if |
| kuróh | anyone is present) |
| nəsín | 'Go:' |
| páh | 'Wait:' |
|  | 'Now:' (especially referring to |
|  | going) |

yéh
'Now!'

| "áh | 'Here soat!' |
| :--- | :--- |
| ’éh | 'Here, take it!' |
| \{yéh \} may modify a verb, in which case the verb |  | has the emphatic stress. This shows that the strong• stress is an intonational rather than morphemic feature, e.g. Jéh mêik: 'Hey look!'

Additional examples of vocative exclamations:
 (me) the razor.'.
/フ茥h: ké?e yíh savón man./ 'Here: Take this soap:


Examples
 is pretty.'
 is beins beaten.'

## CHAPTER MHREE

MACMICS
3000. The tactic description presented here should perhaps be termed a characterization rather than a description. It simply is not possible from the data to give a detailed analysis. An attempt rather is made to somewhat informally present the lower level constructions and the major tactic units within which they are distributed. The description begins with the mid-level constructions, i.e., the clause, proceeds to the sentence, and concludes with the phrase.
3100. The clause

The clause consists minimally of a predicational nucleus; it may be expanded by a modal and one or more satellites. Two types of clauses occur in contrastive structure differinc with respect to word order and the presence or absence of various introducers; they are Independent and Dependent clauses.
3110. The Independent clause (IC) is summarized by the following statement.

$$
\text { IC: + Pred. nucl. } \pm \text { Modal } \pm \text { Satellites }
$$

Pred. nucl.: + Predicator + Independent subject Abbreviations:

Pred. nucl. = predicational nucleus Conn. = connective Fred. aux. = predicate auxiliary

The clausal constituents which are not coterminous with a single morpholofical class are described as follows.
311. Predicators are of two types: • phrasal and simple. Phrasal predicator:

$$
\begin{array}{ll} 
\pm \text { Conn. } \pm \text { Pred. aux. } \pm\{\text { ke }\}+\text { Predicate }_{p} \\
\text { Predicate }_{p}: & \text { verb phrase } \\
\text { (unrestricted) } & \text { locative phrase } \\
& \text { numeral phrase }
\end{array}
$$

Simple predicator:

(unrestricted)
demonstra亡ive locative demonstrative pronoun nown phrase possessive noun or locative durative phrase $\{\varepsilon I\}$ phrase temporal locative emphatic pronoun predicational particle adverbial numeral interrogative phrase

Note: A predicational nucleus having an adverbial numeral or a predicational particle as predicate oblisates the occurrence of a satellite; such a predicational nucleus functions essentially as an introcucer, the najor predicational coment occurring in the
satellite.
Restricted predicates occur only in predicate position. Unrestricted predicates may also occur in the predicational satellite.
3112. The Independent Subject is of two types: simple and bipartite。

Simple subject: Emphatic pronoun

$$
\begin{gathered}
\text { \{pəcə }\} \text { '(obligational)' } \\
+ \text { Subordinate pronoun }
\end{gathered}
$$

Proper noun
A bipartite subject consists of a subject nucleus plus an optional expansion.

Bipartite subject: + INucleus $\pm$ Expansion
Nucleus: Subject pronoun
Interrogative pronoun .
$=$
Expansion: $\mathrm{NP}_{s}$
Proper noun ${ }_{1}$
Emphatic pronoun $n_{1}$
Demonstrative pronoun 1
Subscript 1 in the expansion tacs the morphemes which must afree with the subject pronoun as to person, number, and/or animate/ inanimate.

When the expansion is a prover noun it is set off phonologically by comma juncture, e.g.
//lanán an, c5•n.// 'John is heavy.'
Interrugative pronouns have not been observed with demonstrative pronoun expansion.

The subject is frequently omitted in requests or commends.
E.g.
//kápan!// 'Stab him!'
//ké•?ta kanú•c cu.// 'Give me a pen.'
311.3. Satellites

Satellites are of two tyees: predicational and respectual. They may co-occur, as may a sequence of more than one of a particular type. 31/3.1 Preaicational satellites are phrasal constructions consistine of an optional subordinate pronoun plus an unrestricted predicate. The satellite adds predicational comment to one of the substantive elements of the predicational nucleus. The subordinaté pronoun designates the subject of the satellite. Its pronominal reference is to either the subject or object of the predicational nucleus, which is being expanded by the satellite. The subordinate pronoun is clarificational in use, usually being omitted if the relationship of the satellite to the clause is clear. When the subject is a third person, however, the subordinate pronoun is only rarely omitted.
E.g.
//yóklo nác, „am ’ám, (nə) i ’úk $0 . / /$ 'The dog
climbed up on his back.' (\{nə\} 'he' refers to the noun of the subject expansion,ie. \{ ('ám\} 'dog') //kasála meh cin, am tisáknə kúy níh mák.// 'I dare you to jump across tiris well.' (\{əm\} 'you' [subordinate] refers to \{meh\} 'you' [possessive].)

The relationship between the predicate of the nucleus and the satellite remains to be worked out. There may weli be co-occurrence restrictions between the tactic units which may occur in the predicational nucleus and tine predicational satellite. There are no sentences, for example, having a locative phrase both in the predicate nucleus and in the predicational satellite. Verb phrases, however, frequently co-occur,
 'Fred, teach your friends to dance.'

It is probable that whatever restricticns do obtain are semantic rather than structural. 3113.2 Respectual satellites are phrasal constructions consistince of $\left\{t_{\hat{E}}\right\}$ '(grammatical relator)' zlus a noun phrase, a numeral whase, or an action referent phrase. The respectual satellite is clarificational in nature; it adds information of a "with respect to" nature as to agsnt, object, reason, etc. In any particular example its translation is dependent on its function. The action referent phrase, referred to above,
occurs only in the rescectual satellite; it consists of an action referent plus a noun phrase (NP'). It is restricted in distribution with respect to the type of predicator which occurs in the predicational nucleus, occurring only with clauses having verbal predicators that are neither attributive verbs of stem class 3 nor passive verbs of stem class 1. Examples of respectual satellites are as follows.

'The branch has been broken down by the wind.' //patéñ cin, té tí•’ cón, nəíóha cu.// 'I'm smarting due to Jonn's whippins me.' (Smart $I$, by hand John, he :ihip me.)
 'Once there was a widow winc haí four children.'
 'word-maker threw dirt on her head.'
 'They get money throurh its fruit.' (Obtain they of money, they through these fruit it.)

There is clearly a Ereat deal more work to be done in the analysis of the satellite constructions. There quite possibly are subtypes which need to be iaentified; and co-occurrence restrictions to be stated; it has simply not been possible to carry the analysis beyond the present point.
3120. The Dependent clause is summarized by the following statemert.

DC: + Sủ̉ordinate conjunction + Dependert suoject $\pm$ Modal + Predicate satellite $\pm$ satellites. The dependent subject consists of a possessive pronoun or a subject noun phrase.

The Dependent clause is distirsuished from the Independent clause by three differences: (l) the presence of the subordinate conjunction, (2) the occurrence of the subordinate pronoun, rather than a subject pronoun, in the subject position, and (3) the obligatory occurrerce of a predicate satellite. The subject of the preiicate satellite always agrees with the Dependent subject as to person ard number.

Wiewing .the relationship betmeen the Deperdent and Indeperdert clauses dynamically, the IC predicator is replaced by the suoordinate coniunction, the subject is in the possessive rather than the subject case, and the predicator is expressed as a clause satellite. Hote the following examples.

IC: //İ*k an jam máy.// 'The sea is calm.'
 is calm.'
 hearing them.'

DC：／／yé• o no só•’，no há̀ ró•’ ca．／／＇If he neglect：s hearin ${ }^{5}$ them．．．＇

IC：／／instgə ay min．／／＇ile will steal away．＇
DC：／／hテ́• há・ク min aü mf́tno．／／＇So that we will steal away．＇

3130．Indirect ciause
The Indirect clause（Ind．C）is a variation of the subordinate clause in that the reflexive $\{\tilde{r} \varepsilon\}$ is the dependent subject then the subject of the independent and indirect clauses are the same．The Indirect ciause is introduced by \｛to\}, '(y̌amnatical relator)'. E．g．
／／vé・ヘ̃ə nán cón，té cu min，nac umún．／／＇Tell John that I will be there．＇

2200．Only brief statements can be made about the sen－ tence．It consistis minimally of an Independent clause， winich may optionally be extended by one or more Depen－ dent clauses or by an Indirect clause．Dependent clauses may either precede or follow the Independent clause；a sinele $D C$ is attested precedin ${ }^{\text {E }}$ the IC；only two are attested after it．The followiñ formulas summarize these statements．

$$
\begin{aligned}
S= & +I C \pm D C \pm D C \\
& \pm D C+I C \\
& +I C \pm I n \bar{a} . C
\end{aligned}
$$

These statemeats are in no way meant to be exhaus－ tive；there are certainly other sentence types that occur．But the data do not allow that the analysis proceed beyond this point．

Examples of the above senterce types are as follows． ＋IC＋DC＋DC：／／フぁえ akánalón cin，yé•o，na yíh， yé• o ns róh？a•．／／＇I don＇t know whether he wili come or not．＇
＋DC＋IC：／／yé•ay kīnótíu• née・つ min，yac yíh．／／ ＇If we finish ainner，we will come．＇
 rón．／／＇They found that it＇s fruit was tasty．＇
3300. Thrasal corstractions concrise verb, locstive, durative, noun, interrontive, ard rumeral phrases. 3310. Verb phrase

The verb phrase defires tso tactic classes of the inflected verb corstructions, as follows.

VR: Fersoral referent verb; Non-personal referent verb; Referertial verb with \{rén\}

VNR: All other verb constructions, ard unsuffixed non-azentive and intransitive stems.

The verb phrase is comorised of three phrasal constructions, i.e.
$V P_{I}: V R+N P$
$\nabla P_{2}: V R+N^{\prime}+N P^{\prime}$
$\forall P_{3}: \quad \mathrm{VRT} \pm \mathrm{N}$
The relationshio between VF and NP or V is objective; that between $T$ TrR and $N$ is attributive.

N' is a suoclass of nouns which is defined by the above constructional statemerts and by the transformational relationstip which obtains between types $V P_{1}$ and $\mathrm{VP}_{2}$ to type $\mathrm{VP}_{3} \cdot$ Trpes $\mathrm{VP}_{1}$ and. $\mathrm{VP}_{2}$ are always active. clauses; their passives are, respectively, $V D_{3}$ where $V P_{3}$ is $V N R$, and $V P_{3}$ where it is $N N R+N '$ Note the following examples.
$\mathrm{VP}_{1}$ mál yam lí•par̃ $\varepsilon$ cin. 'I see the book'. VR $N P$

Its passive:
 VR S Agt
'The book is seen by me.'
$\mathrm{VP}_{2} \quad \vee \mathcal{\varepsilon} \cdot{ }^{\text {nñ }}$ nán cu có•n 'John tells me.' VR IT IP' S

Its passive:

VNR N' N Agt
'I'm tolà by John.'
The vero type in $\mathrm{VP}_{3}$ is not restricted to the passive; virtually every tfpe oif non-referential verb except the Incorporated goal construction has been found in the construction VNR + F'. But in every example but one in the data in' is a descriptive attribute of the clause subject such as a body part or emotion, of animate subjects, or a part or description, of inenimate objects - which could in some other grammatical construction be formally possessed by the subject. The single exception: //kihís•to lí•pař cin.// 'riy books are all tahen.' (Attributive verb, ir', subject; lí•parie may be formally possesseã. but is not, oi course, a part of the subject.)

There are two morphemes that are not nouns that are distributed as $\mathrm{J}^{\prime}$ morphemes and are classed with them here for the sake of simplicity: \{ti・フ\} 'hand' and $\left\{r \xi_{2}\right\}$ 'doing'.
$\{t i-?\}$ is a member of the action referent class and is described in that section. As a free form \{tí.?\} means 'doing by hand', e.g. //h́n tí.? 0 cin.// 'I'm waiting for him (to do it) by hand.' (Wait [do-by-hand] him I.)
$\left\{r \varepsilon n_{2}\right\}$ is found only after $V N R$; it refers to 'cioing' in general, e.g. //rónhəc rén cin, [haníhtər̃ $]. / /$ 'I'm still listening.' (Still doing I, [Iistening].)

Special comments are in order regarding $\operatorname{PP}$ of $\mathrm{VP}_{1}$. The fully expended noun phrase has seven positions. However, there is evidence that the object noun phrase, found in $\mathrm{VP}_{1}$, is limited to four positions, as per the first example below. There are no examples of acjectivenoun sequences occurring as verb objects; either the noun or the adjective is transposed to post-subject position, of an Independent clause, as per the second example. The data do not allow that the position of the transposition be fixed with respect to the modals of the Independent clause nor at all with respect to the Dependent clause.

Examples of the verb phrases are as follows. Phey are presented in full sentence contexts; the verb phrase occurs initially in each exarple below and is separated from the rest of the sentence by a space.
$\mathrm{VP}_{1}: / / \mathrm{m}$ ask né• pitó•ttít ñiné•ko cu man.// 'See these marks of my binding.' (See these scar-remains binãing my you.)
//k é•te təmanúl man lí•pəř, Pin cu.// 'Give me tine yellow book.' (Give yellow you book, to me.)
//harú•ngo sanó•y nam cehecón man.// 'Singe the bird's feathers.' (Singe hair the bird you.)
$\mathrm{VP}_{2}: / /$ hacíp एátře man néecka $\varepsilon . / /$ Examine it carefully.' (nake-straight eye-self you examine it.)
//hamírcho mát coon cine, ta lí•por̃e.// 'I'm showing John the book.' (Cause-see eye John I, of book.)
 'Occasionally the tree is perched by birds.' (Perch branch it the tree, by bird.)
//hurínə kana an nan coon.// 'The tree trunk is black.' (Black trunk it the tree.)
 of this book is rough carved.' ([Rough carved] book it this book.)
VR: //sir̄ólo cine, to nuã́•/// I'm butted by the bull. (Butted I, by bull.)
//ミañák an nam k.núc.// 'The pencil is split. (Spit it the pencil.)
3320. Locative phrases

Both of the Iccative morphemes, \{?ín\} and $\{\varepsilon l\}$, occur as phrasal introducers. The \{"ín\} phrase is much more frequent and more broadly distributed; it is referred to as the "locative phrase", while the \{ $\varepsilon 1\}$ phrase is termed simply the "\{عI\} phrase".
3321. The \{?ín\} phrase consists of the directional locative $\left\{?\left\{\begin{array}{l}\text { n }\end{array}\right.\right.$ 'in, to' plus either a noun phrase or a demonstrative locative.
$I P:\{$ In $\}+\left\{\begin{array}{l}\mathrm{MP} \\ D I\end{array}\right.$
The locative phrase focuses the locus or direction of the condition or action in space or time. when locative phrases expressins both spatial and temporal location occur with the same clause, the spatial locative precedes.

Fiecall that \{?ín\} plus third person 'not-visible' and 'past' pronouns contract.
E.g.
//ik ható•m// 'in the night'
//i kúy ทam Iípəテ̄e// 'on the hook'
//in meh// 'tome'
//i nuk kinlónə la? ह́ñ̃ $\varepsilon / /$ 'to their work at the fence'
3322. The $\{\varepsilon I\}$ phrase consists essentially of $\{\varepsilon I\}$
plus a noun phrase; noun phrases which are attested are all quite brief, but probably the full noun phrase is possible after $\{\varepsilon l\}$, i.e.
$\{\varepsilon I\}$ phrase: $\{\varepsilon \beth\} \div M P$
E.g.

| //EI kựo -kəo// | 'in the basket' |
| :---: | :---: |
| //El máy// | 'in the sea' |
| //El haté $\mathrm{m} /$ / | 'in the evenins' |
| //El nam mané $\mathrm{ma}^{\text {a }}$ // | 'in the hole' |

3330. Durative phrase

The durative phrase consists of \{hé•\} 'while, when', plus an $\{\varepsilon l\}$ phrase or, probably, a noun phrase of a restricted nature; only one example is attested of \{hé-\} with a following noun.
E.g.
//hé• lanél// 'during the (time of) plenty'
 great heat)
3340. Noun phrase

Three constructional statements define the noun phrase; each is presented in turn.

Special symbols:
$N_{c}=$ common noun; $D=$ demonstrative pronoun
$N_{p}=$ proper noun; $D^{\prime}=D, 3 r d$ pers. not-vis. \& past pron.
$P_{p}=$ poss. pron.; $F_{p}^{\prime}=P_{p},\{\tilde{r} \varepsilon\}$ 'self', \{hé•\} 'each other'
(Recall that $\{\tilde{\Gamma} \varepsilon\}$ occurs suffixed to a prececine noun)

$$
\begin{aligned}
& \text { NP: } \quad+\left[ \pm \mathrm{Ni}_{c} \pm \pm \mathrm{NP}^{1}\right] \\
& N_{c} P:\left\{\begin{array}{l} 
\pm D^{i} \pm A d j+M_{c} \\
\pm\{\mathrm{nam}\}+N_{c}
\end{array}\right. \\
& \text { MP': } \pm N_{p}, \pm M_{c} P \pm P_{p}^{\prime}
\end{aligned}
$$

Theoretically: the fally expanded noun phrase could contain seven words, i.e.
$+D+A d j+N_{c}+D \div A d j+N_{c}+P_{p}^{\prime}$
This formula is a generalization from the patterns that are found; it generates phrases such as the following, which could surely occur but are not in fact attested:

'The piled books of my stupia child' (The piled book the stupid child my)

In the data the noun phrase rarely contains more than four words, e.E.

$$
+D+A d j+N_{c}+P_{p}^{\prime}
$$

Examples of some of the possibilities generated by the constructional statement are as follows:

$$
\begin{aligned}
& D+\operatorname{Adj}+\mathbb{N}_{c}: / / v e ́ \cdot \text { tatkó•" tařik// 'These unable } \\
& \text { people' }
\end{aligned}
$$

panám// 'These waves of this troubled land'
$N_{c}+N_{p}$ : //vatí•? hañvé// 'Harvey's house'
$N_{c}+D+\mathrm{I}_{c}+\tilde{\mathrm{r}} \varepsilon: / / k i n p a ́ h e ~ o k m e ́ m \tilde{r} \varepsilon / /$ 'dying of
one's brother'
$N_{c}+F_{p}^{\prime}: / / h o ́ l ~ c u / / ~ ' m y ~ i ̂ r i e n d ' ~$
(These all men).
(neck parent-own)

A second noun phrase is distributed in the subject phrase. It is a less fully expanded phrase, as follows.

$$
\mathbb{N P}_{\mathrm{s}}=+\left[\begin{array}{l} 
\pm\left[ \pm \mathrm{D}_{1}+\mathrm{N}_{\mathrm{c}}\right] \pm \mathrm{P}_{\mathrm{p}} \\
\pm \mathrm{N}_{\mathrm{c}} \mathrm{P}
\end{array}\right.
$$

Morphemes tageed with subscript 1 must agree in number, person, and/or animate/inanimate with the subject pronoun, with which $\mathbb{E P}_{s}$ occurs as an expansion.

Note: when $\mathrm{HF}_{\mathrm{S}}$ is $\mathrm{TF}_{\mathrm{c}} \mathrm{P}$ which is occurring as the expansion of a 3rd. person non-past visible pronoun subject, i.e. \{an\} or \{nun\}, \{yam\} is obligatory. E.g.
//yíhtor̃e an nam hól cu.// 'riy friend came to me.' But *//yíhtar̃e an hól cu.// may not occur. Other examples of $\mathrm{HP}_{\mathrm{s}}$ : E.g.
 a good man.'
 sins are revealea to you.'

There is one example of a noun phrase containing a numeral adjective; tine noun is classified. The formula for the phrase found is as follows.

$$
i P_{n}:+D+A C j_{n}+C l f+N N_{c}
$$

I.e.
 is hollow.'

Additional data would probably allow integrating this phrase type into the NP formula.
3350. Interrogative phrase

The interrogative phrase consists of a predicate interrogative, $I R$, plus an optional noun, i.e.

Interrogative phrase: ${ }^{+}$IR $\pm \mathrm{F}$
E.g.
//sitíh tí•? ap, nə félán?// 'How did he beat him?'
//ªcín ap lumkún ap عlmó•ri?// 'Who is rattliñ. the cupboard?'
3360. Numeral phrase

The numeral phrase comprises three phrasal constructions as follows.

Symbols used:
Num: Unaffixed numerator Clf: Classifier
$N_{u c l}$ : Unclassified noun $N_{c I}$ : Classified noun
IO2: Incorporated object quantifier
$\operatorname{NumP}_{I}:\left[\begin{array}{l}\text { Num }+ \text { Clf }+\mathrm{N}_{c l} \\ \text { Attributive numeral }+\mathrm{N}_{\mathrm{ucl}}\end{array}\right.$
Numeral phrase 1 is bipartite, with separate statements for classified and unclassified nouns. The two statements have the same distribution.

## E.E.

//’á•m manśk kún am?// 'How many children do you have?'
 //né•ta sinr̂ó•l anáhº.// 'iie had two horns.'


The nouns occurring in this construction may be of a limited class; most examples are of numerable nouns referrins to a time span.
E.g.
//n尺•t sumkán cin, "ahík.// 'I fasted four days.' //fُ́•nhat cin, fóho.// 'I'm beaten four times.' $/ / h e ́ n q$ oñ mité•m cin, $\varepsilon$ l má•y.// 'I was out at sea one night.'
//símí́t nun.// 'Ten remain.'
//féntā̃ $\varepsilon$ sumká: cin, kapáh.// 'I will die in four days.'

$$
\mathrm{NumP}_{3}:+\left[\begin{array}{c}
\mathrm{Num} \\
\mathrm{IO} 2
\end{array}\right] \pm \mathrm{Clf}
$$

In this construction the classifier refers either to the subject noun or to a noun which may be present in an optional satellite of the clause. E.g.
//lú•y tak yin vé-ní•?, ihíh.// 'The three children are here.'
 have you made?' ([How many] [Classifier: long narrow objects] you, make arrow?)
/héghôt tí’ cin.// 'I scored one.'

## Appendix I

The occurrences of unstressed /i, a, $\partial, u /$ which are found in the data are shown in the following charts. Syllables which are the result of metathesis or vowel harmony are not included. * indicates the form so occurring is a particle. $C_{1}{ }^{C_{2}}$

| $p$ | $X$ | $X$ | $X$ |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $t$ | $X$ | $X$ |  | $X$ | $X$ |

c X
k X 'X X
m X X
n $\mathrm{X}^{*} \mathrm{X}^{*} \mathrm{X}$ X
ñ $X$


Distribution of unstressed /a/


Distribution of unstressed /i/



Distribution of unstressed /u/

